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ABSTRACT

The first of a three-volume set of instructional materials for a graphic arts course, this manual consists of 13 instructional units. Covered in the units are orientation (career overview, shop safety, shop organization, photo-offset theory, legal restrictions, and applying for a job); principles of copy planning (overview of copy planning and preparation, typography, design principles, and paste-up principles and procedures); and composition (composition, typesetting procedures, proofs, proofreading, and corrections). Each unit contains some or all of the following: performance objectives, suggested activities for teachers, information sheets, assignment sheets, job sheets, visual aids, tests, and test answers. Instructional materials in the publication are written in terms of student performance using measurable objectives. (MN)

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GRAPHIC ARTS: BOOK ONE
ORIENTATION, COMPOSITION, AND PASTE-UP

by

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Developed by the

Mid-America Vocational Curriculum Consortium, Inc.

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For his dedication and untiring efforts in promoting the cause of MAVCC,

For his years of service to the Oklahoma Department of Vo-Tech,

For his years of service to the printing industry,

And, for his friendship, help, and guidance,

We proudly dedicate this book

to

NOEL WILCOXSON
Printing Plant Foreman

Oklahoma State Department of Vocational and Technical Education

FOREWORD

The Mid-America Vocational Curriculum Consortium (MAVCC) was organized for the purpose of developing instructional material for the eleven member states. Priorities for developing MAVCC material are determined annually based on the needs as identified by all member states. One of the priorities identified was graphic arts or offset printing. This publication is the first of three books designed to provide the needed instructional material for this area.

The success of this publication is due, in large part, to the capabilities of the personnel who worked with its development. The technical writers have numerous years of industry as well as teaching experience. Assisting them in their efforts were representatives of each of the member states who brought with them technical expertise and the experience related to the classroom and to the trade. To assure that the materials would parallel the industry environment and be accepted as a transportable basic teaching tool, organizations and industry representatives were involved in the developmental phases of the manual. Appreciation is extended to them for their valuable contributions to the manual.

This publication is designed to assist teachers in improving instruction. As these publications are used, it is hoped that the student performance will improve and that students will be better able to assume a role in their chosen occupation, small engine repair.

Instructional materials in this publication are written in terms of student performance using measurable objectives. This is an innovative approach to teaching that accents and augments the teaching/learning process. Criterion referenced evaluation instruments are provided for uniform measurement of student progress. In addition to evaluating recall information, teachers are encouraged to evaluate the other areas including process and product as indicated at the end of each instructional unit.

It is the sincere belief of the MAVCC personnel and all those members who served on the committees that this publication will allow the students to become better prepared and more effective members of the work force.

David Merrill, Chairman
Board of Directors
Mid-America Vocational
Curriculum Consortium

PREFACE

For many years those responsible for teaching graphic arts and offset printing have felt a need for better quality materials to use in this area. A team of teachers, industry representatives, and trade and industrial education staff members accepted this challenge and have produced three manuals which will meet the needs of many types of courses where students are expected to become proficient in the area of printing. This publication, *Graphic Arts: Book One--Orientation, Composition, and Paste-Up*, is designed to teach the information related to composition. Content for the camera, press, and bindery areas will be taught in Books Two and Three.

Every effort has been made to make this publication basic, readable, and by all means usable. Three vital parts of instruction have been intentionally omitted from this publication: motivation, personalization, and localization. These areas are left to the individual instructors and the instructors should capitalize on them. Only then will this publication really become a vital part of the teaching-learning process.

In addition, we would appreciate your help. We check for content quality, spelling, and typographical errors many times in the development of a manual. It is still possible, however, for an error to show up in a publication.

If, in the use of this publication, you should find something questionable we would appreciate you bringing it to our attention. A copy of the page or pages in question with your suggestions for correction would certainly help us when we revise and update materials.

We're trying to provide you with the best possible curriculum materials and will certainly appreciate your help in detecting areas where possible corrections are needed to maintain the quality you want and deserve.

Ann Benson
Executive Director
Mid America Vocational Curriculum
Consortium, Inc.

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Appreciation is extended to those individuals who contributed their time and talents to the development of *Graphic Arts: Book One--Orientation, Composition, and Paste-Up*.

The contents of this publication were planned and reviewed by:

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Special thanks are extended to Noel Wilcoxson, foreman of the Print Shop located at the Oklahoma State Department of Vocational-Technical Education, for his representation of industry on the committee and to the numerous other companies who provided references and technical materials.

Gratitude is expressed to Joan Dolan for editing and to the Graphics Division of the Oklahoma State Department of Vocational and Technical Education for typing and art work.

Special appreciation goes to Bill Braun for designing the cover of this publication.

The printing staff of the Oklahoma State Department of Vocational and Technical Education is deserving of much credit for printing this publication.

USE OF THIS PUBLICATION

Instructional Units

The *Graphic Arts: Book One--Orientation, Composition, and Paste-Up*, includes thirteen units. Each instructional unit includes some or all of the basic components of a unit of instruction: performance objectives, suggested activities for teachers, information sheets, assignment sheets, job sheets, visual aids, tests, and answers to the test. Units are planned for more than one lesson or class period of instruction.

Careful study of each instructional unit by the teacher will help to determine:

A. The amount of material that can be covered in each class period
B. The skills which must be demonstrated
    1. Supplies needed
    2. Equipment needed
    3. Amount of practice needed
    4. Amount of class time needed for demonstrations
C. Supplementary materials such as pamphlets or filmstrips that must be ordered
D. Resource people who must be contacted

Objectives

Each unit of instruction is based on performance objectives. These objectives state the goals of the course, thus providing a sense of direction and accomplishment for the student.

Performance objectives are stated in two forms: unit objectives, stating the subject matter to be covered in a unit of instruction; and specific objectives, stating the student performance necessary to reach the unit objective.

Since the objectives of the unit provide direction for the teaching-learning process, it is important for the teacher and students to have a common understanding of the intent of the objectives. A limited number of performance terms have been used in the objectives for this curriculum to assist in promoting the effectiveness of the communication among all individuals using the materials.

Following is a list of performance terms and their synonyms which may have been used in this material:

Name	Identify	Describe
Label	Select	Define
List in writing	Mark	Discuss in writing
List orally	Point out	Discuss orally
Letter	Pick out	Interpret
Record	Choose	Tell how
Repeat	Locate	Tell what
Give		Explain

Order

- Arrange
- Sequence
- List in order
- Classify
- Divide
- Isolate
- Sort

Distinguish

- Discriminate

Construct

- Draw
- Make
- Build
- Design
- Formulate
- Reproduce
- Transcribe
- Reduce
- Increase
- Figure

Demonstrate

- Show your work
- Show procedure
- Perform an experiment
- Perform the steps
- Operate
- Remove
- Replace
- Turn off/on
- (Dis) assemble
- (Dis) connect

Additional Terms Used

- Evaluate
- Complete
- Analyze
- Calculate
- Estimate
- Plan
- Observe
- Compare
- Determine
- Perform
- Prepare
- Make
- Read
- Tell
- Teach
- Converse
- Lead
- State
- Write

Reading of the objectives by the student should be followed by a class discussion to answer any questions concerning performance requirements for each instructional unit.

Teachers should feel free to add objectives which will fit the material to the needs of the students and community. When teachers add objectives, they should remember to supply the needed information, assignment and/or job sheets, and criterion tests.

Suggested Activities for the Instructor:

Each unit of instruction has a suggested activities sheet outlining steps to follow in accomplishing specific objectives. Duties of instructors will vary according to the particular unit; however, for best use of the material they should include the following: provide students with objective sheet, information sheet, assignment sheets, and job sheets; preview filmstrips, make transparencies, and arrange for resource materials and people; discuss unit and specific objectives and information sheet; give test. Teachers are encouraged to use any additional instructional activities and teaching methods to aid students in accomplishing the objectives.

Information Sheets

Information sheets provide content essential for meeting the cognitive (knowledge) objectives in the unit. The teacher will find that the information sheets serve as an excellent guide for presenting the background knowledge necessary to develop the skill specified in the unit objective.

Students should read the information sheets before the information is discussed in class. Students may take additional notes on the information sheets.

Transparency Masters

Transparency masters provide information in a special way. The students may see as well as hear the material being presented, thus reinforcing the learning process. Transparencies may present new information or they may reinforce information presented in the information sheets. They are particularly effective when identification is necessary.

Transparencies should be made and placed in the notebook where they will be immediately available for use. Transparencies direct the class's attention to the topic of discussion. They should be left on the screen only when topics shown are under discussion.

Job Sheets

Job sheets are an important segment of each unit. The instructor should be able to and in most situations should demonstrate the skills outlined in the job sheets. Procedures outlined in the job sheets give direction to the skill being taught and allow both student and teacher to check student progress toward the accomplishment of the skill. Job sheets provide a ready outline for students to follow if they have missed a demonstration. Job sheets also furnish potential employers with a picture of the skills being taught and the performances which might reasonably be expected from a person who has had this training.

Assignment Sheets

Assignment sheets give direction to study and furnish practice for paper and pencil activities to develop the knowledges which are necessary prerequisites to skill development. These may be given to the student for completion in class or used for homework assignments. Answer sheets are provided which may be used by the student and/or teacher for checking student progress.

Test and Evaluation

Paper-pencil and performance tests have been constructed to measure student achievement of each objective listed in the unit of instruction. Individual test items may be pulled out and used as a short test to determine student achievement of a particular objective. This kind of testing may be used as a daily quiz and will help the teacher spot difficulties being encountered by students in their efforts to accomplish the unit objective. Test items for objectives added by the teacher should be constructed and added to the test.

Test Answers

Test answers are provided for each unit. These may be used by the teacher and/or student for checking student achievement of the objectives.

GRAPHIC ARTS: BOOK ONE
ORIENTATION, COMPOSITION, AND PASTE-UP

INSTRUCTIONAL/OCCUPATIONAL ANALYSIS

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)	RELATED INFORMATION: What the Worker Should Know (Cognitive)

SECTION A--UNIT I: CAREER OVERVIEW

1. Major areas of specialization
2. Types of companies that employ printers
3. Personal traits for successful printers
4. Related skills
5. Advantages and disadvantages of printing occupations
6. Determine employment opportunities
7. Interview a printing employee

UNIT II: SHOP SAFETY

1. Terms and definitions
2. Proper safety rules
3. Steps in maintaining a safe and orderly shop
4. Basic hand tools
5. The do's and don'ts of using basic hand tools
6. The do's and don'ts for handling chemicals properly
7. Colors and designations of the safety color code
8. Classes of fires and definitions
9. Types of fire extinguishers
10. List the general steps to be taken in case of an accident
11. Describe the steps to be taken in given accident situations

UNIT III: SHOP ORGANIZATION

1. Concerns of successful plant management
2. Job titles and duties
3. Production steps in printing jobs

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)	RELATED INFORMATION: What the Worker Should Know (Cognitive)
	4. Items essential to proper job production control
	5. Steps for initiating a printing job
	6. Personnel control
7. Make an organization chart of a school shop	
8. Complete job tickets	

UNIT IV: PHOTO-OFFSET THEORY

	1. Terms and definitions
	2. Five major printing processes
	3. Statements concerning the basic offset printing process
	4. Materials on which printing is done
	5. Terms synonymous with offset printing
	6. Basic photo-offset process
7. Test the ink-water principle on an offset plate	

UNIT V: LEGAL RESTRICTIONS

	1. Terms and definitions
	2. Elements of copyright notice
	3. The U.S. copyright law
	4. Tests for judging "fair use"
	5. Use of photographs
	6. Obtaining permission
	7. Items which may not be eligible for copyright
	8. Items which may be copyrighted
	9. Statements concerning printing trade customs
10. Request copyright release	
11. Determine local printing trade customs	

UNIT VI: APPLYING FOR A JOB

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)	RELATED INFORMATION: What the Worker Should Know (Cognitive)
	1. Terms and definitions
	2. Means of locating job openings
	3. Methods of applying for a job
	4. Information asked for on job application
	5. Employer and employee expectations
	6. Personal attributes or attitudes
	7. Proper conduct
8. Prepare a resume	
9 Write a letter of application	
10. Complete an application form	
11. Prepare a personal portfolio	
12. Practice interview questions	
13. Make an appointment by phone for an offset printing job interview	
14. Write a follow-up letter or make a follow-up phone call after an interview for an offset printing job	
15. Evaluate an offset printing job offer	
16. Compare job opportunities	

SECTION B--UNIT I: PRINCIPLES OF COPY PLANNING AND PREPARATION--OVERVIEW

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)	RELATED INFORMATION: What the Worker Should Know (Cognitive)
	1. Terms and definitions
	2. Factors that affect copy planning and preparation
	3. Components of a layout
	4. Layout and paste-up steps
	5. Postal regulations

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)	RELATED INFORMATION: What the Worker Should Know (Cognitive)
6. Identify illustrations as line or halftone	
UNIT II: TYPOGRAPHY	
	1. Terms and definitions
	2. Hot and cold type characteristics
	3. Parts of a type character
	4. Type styles
	5. Type fonts, series and families
	6. Units of measurement
	7. Measuring type
	8. Copyfitting
	9. Select true statements concerning marking up copy
10. Measure type	
11. Calculate copyfitting	
12. Mark-up copy	
UNIT III: DESIGN PRINCIPLES	
	1. Terms and definitions
	2. Characteristics contributing to fitness of layout
	3. Effects of tone
	4. Methods used to achieve emphasis
	5. Use of white space and simplicity
	6. Types of balance
	7. Horizontal and vertical centers
	8. Proportion

JOB TRAINING: What the Worker Should Be Able to Do (Psychomotor)

RELATED INFORMATION: What the Worker Should Know (Cognitive)

9. Shape harmony
10. Methods used to achieve rhythm
11. Statements concerning color
12. Color harmony
13. Color balance
14. Color selection
15. Characteristics of color

16. Complete a drawing of the printer's wheel with proper primary and secondary colors
17. Label magazine ads which utilize design principles

UNIT IV: PASTE-UP PRINCIPLES AND PROCEDURES

1. Terms and definitions
2. Types of camera copy
3. Registration methods
4. Methods of ruling copy
5. Imposition
6. Centering copy on paste-up
7. Proportional scale method, diagonal line method, and formula method
8. Cropping a photograph
9. Use of hand-cut ruby film
10. Statements concerning preparing a complete layout

11. Center copy on a paste-up
12. Scale copy
13. Crop a photograph
14. Prepare camera copy using hand-cut ruby film

15. Prepare a complete and comprehensive layout

SECTION C--UNIT I: COMPOSITION--OVERVIEW AND FORMAT

1. Terms and definitions
2. Kinds of type
3. Strike-on and phototypesetting machines
4. First generation phototypesetters
5. Second generation phototext typesetters
6. Third and fourth generation phototext typesetters

7. Identify formats of type composition

UNIT II: TYPESETTING PROCEDURES

1. Terms and definitions
2. Characteristics of strike-on typesetting equipment
3. Characteristics of photolettering/phototypesetting machines
4. Type image carriers

5. Set text type using a strike-on machine
6. Set text type using a phototypesetting machine
7. Set display type using a photolettering/phototypesetting machine

UNIT III: PROOFS, PROOFREADING, AND CORRECTIONS

1. Terms and definitions
2. Kinds of type proofs
3. Proofreaders' marks
4. Reading and marking proof copy
5. Types of corrections

6. Read and mark proof copy

7. Read and mark newspaper copy

8. Make corrections in proof copy

TOOLS AND EQUIPMENT

- Black ink
- Blue pencil
- China marking pencil
- Cotton pads
- Illustration board
- Ink knife
- Layout table
- Line gauges
- Magnifier
- Masking/drafting tape
- Offset plate
- Opaquing brush
- Photolettering/phototypesetting machine
- Phototypesetting machine
- Plastic triangles
- Preservatives
- Proportion wheel
- Rubber cement
- Ruby film material
- Ruler
- Scissors
- Solvents
- Stripping knife
- T-square
- Tape dispenser
- Trimboard
- Type image carrier
- Typesetting machine
- Water bottle
- White paper

REFERENCES

Addressograph Multigraph Corporation, Educational Division, 1200 Babbitt Road, Cleveland, OH 44117.

Blackledge, Walter L., Blackledge, Ethel H., and Keely, Helen J. *You and Your Job.* Cincinnati: South-Western Publishing Company, 1967.

Brockhuizen, Richard J. *Graphic Communications.* Bloomington, IL 61701: McKnight and McKnight Publishing Co., 1973.

Carpenter Paper Co. Reprint from *Memo to Mailers*, June, 1978.

Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

Davis, Ronald D., Hill, Billy W., and Yancey, Bruce Y. *Basic Drafting, Book One.* Stillwater, OK: Mid-America Vocational Curriculum Consortium, 1981.

Guide to Copyright, New Law, New Directions. Washington, DC 20036: Association for Educ. Com. and Tech., and National Audio-Visual Association, 1977.

Hawkinson, Bruce. *Graphic Arts - A Curriculum Manual.* Albuquerque, NM 87503: Vo-Tech Division of the New Mexico State Department of Education, 1975.

Hodges, John C., and Whitten, Mary E. *Harbrace College Handbook.* 7th ed. New York: Harcourt Brace Jovanovich, Inc., 1972.

Karch, Randolph R. *Graphic Arts Procedures.* 4th ed. Chicago, IL 60637: American Technical Society, 1970.

Kimbrell, Grady, and Vineyard, Ben S. *Succeeding in the World of Work.* Bloomington, IL: McKnight Publishing Company, 1970.

Kodak Publishing. *Graphic Design.* No. GA 11-2. Rochester, NY 14650: Graphic Markets Div./Eastman Kodak Co., 1976.

Latimer, H.C. *Advertising Production Planning and Copy Preparation for Offset Printing.* 3rd ed. New York 10036: Art Direction Book Co., 1974.

Lithographers Manual, ed. Charles Shapiro. Pittsburgh: Graphic Arts Technical Foundation, 1968.

Occupational Child Development. Stillwater, Ok: Mid-America Vocational Curriculum Consortium, 1975.

Orr, Kenneth. *Printing Layout and Design.* Albany, NY: Delmar Publishing Ind., 1968.

Prust, Z.A. *Photo-Offset Lithography.* South Holland, IL 60473: Goodheart-Willcox Co., Inc., 1977.

Silver, Gerald A. *Modern Graphic Arts Paste-Up.* Chicago, IL 60637: American Technical Society, 1973.

Spence, William P., and Vequist, David G. *Graphic Reproduction.* Peoria, IL 61615: Chas. A. Bennett Co., Inc., 1980.

Typographic Council. *An Introduction to Phototypesetting.* Pittsburgh 15213: Graphic Arts Technical Foundation, 1974.

United States Postal Service. *Mailing Permits.* Washington, DC: U.S. Government Printing Office, July, 1977.

Webster's Instant Word Guide. Springfield, MA: G. & C. Merriam Company, 1972.

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CAREER OVERVIEW
UNIT I

UNIT OBJECTIVE

After completion of this unit, the student should be able to select major areas of specialization in the offset printing trade and personal traits and related skills important for successful printers. The student should also be able to distinguish between the advantages and disadvantages of printing occupations. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Select major areas of specialization in the offset printing trade.
2. Name types of companies that employ printers.
3. Select true statements concerning personal traits important for successful printers.
4. Select related skills important for successful printers.
5. Distinguish between the advantages and disadvantages of the printing occupations.
6. Determine employment opportunities.
7. Interview a printing employee.

CAREER OVERVIEW
UNIT I

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Discuss unit and specific objectives.

IV. Discuss information and assignment sheets.

V. Show the film "We Used To Call It Printing" available from the Addressograph Multigraphics Corporation.

VI. Invite a guest speaker from industry to talk about pay, advantages, disadvantages, and opportunities.

VII. An informative brochure on printing occupations is available from the Eastman Kodak Company.

VIII. Take a field trip and visit a commercial printing shop.

IX. Identify the math ability levels of the students and develop/teach basic math as required.

X. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

   A. Objective sheet

   B. Information sheet

   C. Assignment sheets

      1. Assignment Sheet #1--Determine Employment Opportunities

      2. Assignment Sheet #2--Interview a Printing Employee

   D. Test

   E. Answers to test

II. References:

A. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

B. Spence, Dr. Wm. P. and Vequist, Dr. David G. *Graphic Reproduction.* Peoria, IL 61615: Chas. A. Bennett Co., Inc., 1980.

III. Additional references:

A. Eastman Kodak Company, 343 State Street, Rochester, NY 14650

B. Addressograph Multigraph Corporation, Educational Division, 1200 Babbitt Road, Cleveland, OH 44117.

CAREER OVERVIEW
UNIT I

INFORMATION SHEET

I. Major areas of specialization in the offset printing trade

(NOTE: In these major areas and throughout this publication, the terms "graphic arts" and "offset printing" are used synonymously. Graphic arts/ offset printing may be defined as the techniques and crafts associated with the writing or printing on flat surfaces.)

A. Layout and design

B. Composition

C. Paste-up

D. Proofreading

E. Camera

F. Stripping

G. Platemaking

H. Press

I. Bindery

II. Types of companies that employ printers

A. Commercial printing plants

B. In-house printing plants

C. Newspapers

D. Magazine publishers

E. Book publishers

F. Printing supply firms

G. Printing machinery companies

H. Advertising agencies

I. Paper product companies

J. Bindery firms

(NOTE: Bindery firms include both commercial and specialty binderies.)

INFORMATION SHEET

- K. Business form companies
- L. Specialty shops

  Examples: Design shops, composition shops

III. Personal traits important for successful printers

- A. Ability to listen to and follow instructions well
- B. Punctuality
- C. Dependability
- D. Ability to accept constructive criticism
- E. Success oriented
- F. Ability to work well with others
- G. Mechanical ability
- H. Trustworthiness
- I. Willingness to continue education

IV. Related skills important for successful printers

- A. Ability to operate printing equipment correctly
- B. Accuracy
- C. Speed
- D. Neatness
- E. Ability to work without direct supervision
- F. Desire for perfection

V. Advantages and disadvantages of an occupation in printing

- A. Advantages
  1. Open job market
  2. Rapidly growing industry
  3. Quick advancement and pay increases

INFORMATION SHEET

4. Available overtime opportunities
5. Comfortable indoor working conditions
6. Variety of challenging tasks
7. Sense of pride and satisfaction

B. Disadvantages

1. Close work confinement
2. Pressure of work deadlines
3. Rigid standards for accuracy
4. Competitive pay structure
5. Long hours during peak production periods
6. Most good employment opportunities are confined to metropolitan areas

CAREER OVERVIEW
UNIT I

ASSIGNMENT SHEET #1--DETERMINE EMPLOYMENT OPPORTUNITIES

Using the want ads from a local newspaper, the telephone book, radio, television or other sources, determine as many employment opportunities as possible related to the offset printing industry in your community. List these jobs and the place of employment below.

	Job	Place of Employment
a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		

CAREER OVERVIEW
UNIT I

ASSIGNMENT SHEET #2--INTERVIEW A PRINTING EMPLOYEE

Interview an employee of a local printing plant to determine information that would help you in better understanding this trade. Suggested questions are:

1. What are the job responsibilities?
2. What are the advantages of this job?
3. What are the disadvantages of this job?
4. What training requirements are needed to be employed in this job?
5. What is the approximate salary?
6. Other information

CAREER OVERVIEW
UNIT I

NAME____________________________

TEST

1. Select major areas of specialization in the offset printing trade by placing an "X" in the appropriate blanks.

_____a. Bindery

_____b. Camera

_____c. Press

_____d. Welding

_____e. Proofreading

_____f. Platemaking

2. Name six types of companies that employ printers.

a. ____

b. ____

c. ____

d. ____

e. ____

f. ____

3. Select true statements concerning personal traits important for successful printers by placing an "X" in the appropriate blanks.

_____a. Ability to listen to and follow instructions well

_____b. Ability to disregard constructive criticism

_____c. Dependability

_____d. Ability to work well with others

_____e. Unwillingness to continue education

_____f. Ability to get to work on time frequently

4. Select related skills important for successful printers by placing an "X" in the appropriate blanks.

_____a. Accuracy

_____b. Ability to work without direct supervision

_____c. Ability to type

_____d. Desire for perfection

5. Distinguish between the advantages and disadvantages of an occupation in printing by placing an "A" next to advantages and a "D" next to disadvantages.

_____a. Variety of challenging tasks

_____b. Close work confinement

_____c. Open job market

_____d. Pressure of work deadlines

_____e. Sense of pride and satisfaction

_____f. Rigid standards for accuracy

_____g. Competitive pay structure

_____h. Long hours during peak production periods

_____i. Most good employment opportunities are confined to metropolitan areas

6. Determine employment opportunities.

7. Interview a printing employee.

(NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

G I - 15-A

CAREER OVERVIEW
UNIT I

ANSWERS TO TEST

1. a, b, c, e, f

2. Any six of the following:

   a. Commercial printing plants
   b. In-house printing plants
   c. Newspapers
   d. Magazine publishers
   e. Book publishers
   f. Printing supply firms
   g. Printing machinery companies
   h. Advertising agencies
   i. Paper product companies
   j. Bindery firms
   k. Business form companies
   l. Specialty shops

3. a, c, d

4. a, b, d

5.

a.	A	e.	A	i.	D
b.	D	f.	D		
c.	A	g.	D		
d.	D	h.	D		

6. Evaluated to the satisfaction of the instructor

7. Evaluated to the satisfaction of the instructor

SHOP SAFETY
UNIT II

UNIT OBJECTIVE

After completion of this unit, the student should be able to select true statements concerning rules for shop safety and the do's and don'ts of handling basic hand tools and chemicals properly. The student should also be able to identify basic hand tools and describe the steps to be taken in given accident situations. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheet and by scoring 100 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with shop safety with the correct definitions.
2. Select true statements concerning the proper safety rules to be practiced in the shop.
3. Complete sentences concerning the steps in maintaining a safe and orderly shop.
4. Identify basic hand tools used in the shop.
5. Select true statements concerning the do's and don'ts for using basic hand tools properly.
6. Select true statements concerning the do's and don'ts for handling chemicals properly.
7. Match the colors of the safety color code with the correct designations.
8. Match classes of fires with the correct definitions.
9. Match types of fire extinguishers with their characteristics.
10. List the general steps to be taken in case of an accident.
11. Describe the steps to be taken in given accident situations.

SHOP SAFETY
UNIT II

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Make transparencies.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. Lead students on a tour of the shop and point out dangerous areas, such as presses, light sources, and paper cutters, stitches and drills.

VII. Give students a floor plan of the shop and have them locate various objects such as the fire extingusher and first aid kit.

VIII. Invite a representative from the fire department or OSHA to speak on shop safety.

IX. Relate your personal experiences or case studies concerning dangerous situations caused by lack of safety.

X. Discuss color coding as it relates to the shop area.

XI. Show types of fire extinguishers and their functions.

XII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

   A. Objective sheet

   B. Information sheet

   C. Transparency masters

      1. TM 1--Basic Hand Tools

      2. TM 2--Basic Hand Tools (Continued)

      3. TM 3--Classes of Fires, Fire Extinguishers and Their Uses

   D. Assignment Sheet #1--Describe the Steps to be Taken in Given Accident Situations

E. Answers to assignment sheet

F. Test

G. Answers to test

II. References

A. Cogoli, John E., *Photo-Offset Fundamentals*. Bloomington, IL 61701: McKnight Publishing Co., 1980.

B. *Lithographers Manual,* ed. Charles Shapiro. Pittsburgh: Graphic Arts Technical Foundation, 1968.

SHOP SAFETY
UNIT II

INFORMATION SHEET

I. Terms and definitions

A. Safety--State or condition of being safe and free from danger, risk, or injury

B. Accident--Any sudden, unintentional event which causes personal injury or damage

C. First aid--Immediate, temporary care given an accident victim until services of a physician can be obtained

II. Shop safety rules

A. Use tools and equipment only for their intended purpose

B. Return all hand tools to their proper place after use

C. Keep assigned areas clean and free of safety hazards

D. Operate any presses or electricity powered equipment only after the approval of an instructor

E. Clean up any spilled liquid immediately from floors, shelves, or tables

F. Do not sit or lean on light tables

G. Limit the operation of the paper cutter, paper drill, and stitcher to one person at a time

H. Limit the operation of all presses and duplicators to one person at a time

I. Tie back all long hair prior to operating any press or power equipment

(NOTE: Hair should be put in hair nets.)

J. Roll or tightly secure long sleeves and any loose garments prior to operating presses or power equipment

K. Do not clean any press or power equipment while in operation

L. Keep all aisles, doorways and areas around machines and equipment clean and clear of debris, paper, and boxes

M. Report any unsafe condition in the shop immediately

N. Do not get involved in any horseplay in shop or classroom area

INFORMATION SHEET

O. Remove all metal jewelry when operating rotating equipment

P. Use soap and water frequently to help prevent skin irritation

Q. Avoid touching and looking directly at light sources

III. Maintaining a safe and orderly shop

A. Arrange all machinery and equipment to permit safe and efficient operation

B. Keep materials and supplies safely stacked and stored

C. Keep all tools and accessories in cabinets or tool racks

D. Dispose of or store all combustible materials in safe containers

E. Keep all floors clean and free of debris at all times

F. Check that adequate housekeeping equipment and cleaning materials are on hand to insure that maximum cleaning efficiency can be maintained

G. Participate in daily cleanup periods

IV. Basic hand tools (Transparencies 1 and 2)

A. T-square

B. Line gauges

C. Stripping knife

D. Plastic triangles

E. Tape dispenser

F. Opaquing brush

G. Magnifier

H. Proportion wheel

I. Ink knife

V. The do's and don'ts for using basic hand tools properly

A. Do carry tape dispensers with care and place on table carefully

B. Do carry and store stripping knives point down; never extend the knife while it is being carried

C. Do use all hand tools only for their intended purposes

INFORMATION SHEET

- D. **Do not** wave or throw objects, especially those that are heavy or have pointed ends or edges such as T-squares, line gauges, plastic triangles, or stripping knives
- E. **Do not** put any objects in your mouth

VI. The do's and don'ts for handling chemicals properly

- A. **Do** pour chemical into water, never water into the chemical
- B. **Do** wear rubber gloves when handling chemicals
- C. **Do** wear safety glasses when mixing or pouring chemicals
- D. **Do** return chemicals to proper cabinet after use
- E. **Do not** mix or weigh chemicals in darkroom unless strong ventilation is present
- F. **Do not** mix solutions near eyes or face
- G. **Do not** place any containers on edges of counters
- H. **Do not** use any unmarked containers

VII. Colors and designations of the safety color code

- A. Green--Designates location of safety and first aid equipment
- B. Yellow--Designates caution

  Examples: Operating levers, handles, areas where tripping would be hazardous
- C. Orange--Designates dangerous parts of equipment which may cut, crush, shock, or otherwise injure

  Examples: Electrical switches, fuses, electrical power boxes, movable guards
- D. Red--Designates location of fire fighting equipment

  Examples: Emergency fire exits, fire extinguishers
- E. Blue--Designates caution against starting equipment while it is being worked on or use of defective equipment
- F. Ivory--Highlights an area that might otherwise not be noticed

  Examples: Edges of tools, vise jaws, label edges

INFORMATION SHEET

VIII. Classes of fires (Transparency 3)

A. Class A--Fires of ordinary combustible materials

Example: Wood, rags and paper

B. Class B--Fires from flammable liquids

Example: Blanket wash, gasoline, oil, grease

C. Class C--Fires in or near electrical equipment

Example: Motors, switches, electrical wiring

D. Class D--Fires that occur with combustible metals

Example: Magnesium

IX. Types of fire extinguishers and their characteristics (Transparency 3)

A. Multi-purpose dry chemical

1) Selected dry chemicals under pressure

2) Can be used safely on all classes of fires

B. Ordinary dry chemical

1) Selected dry chemicals under pressure

2) Used only for class B and class C fires

C. Foam

1) A solution of aluminum sulfate

2) Used for class A and class B fires

D. Carbon dioxide

1) Carbon dioxide gas under pressure

2) Used for class B and class C fires

E. Soda acid

1) Bicarbonate of soda and sulphuric acid

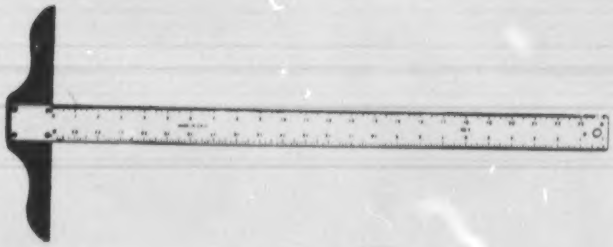
2) Can be safely used only on class A fires

INFORMATION SHEET

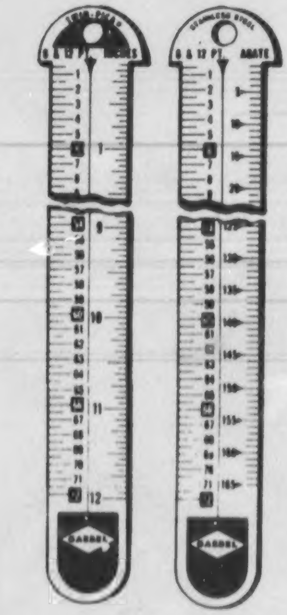
X. Steps to be taken in case of an accident

- A. Turn off power
- B. Administer first aid
- C. Report all accidents and injuries to the instructor no matter how minor
- D. Notify principal immediately
- E. Take injured person to hospital emergency room
- F. Notify parents
- G. Have instructor fill out accident report

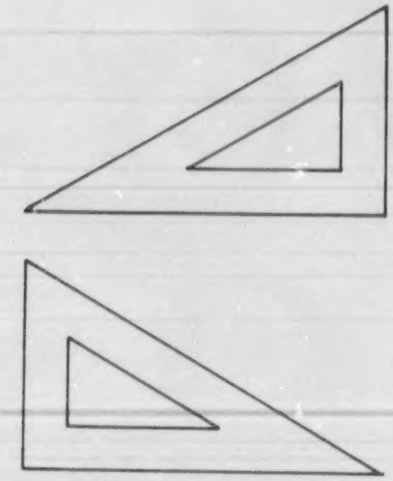
Basic Hand Tools



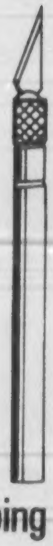
T- Square



Line Gauges



Plastic Triangles



Stripping Knife

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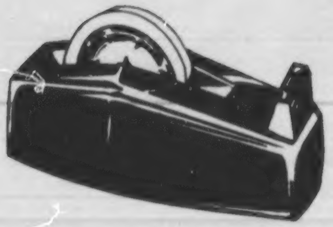
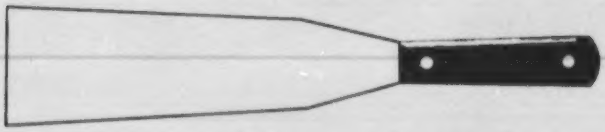
Basic Hand Tools

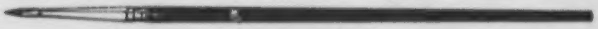
(Continued)



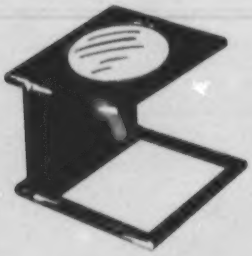
Tape Dispenser



Ink Knife



Opaquing Brush

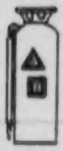
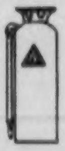
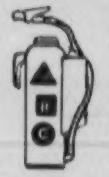
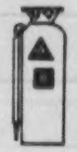
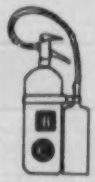
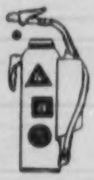
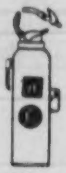
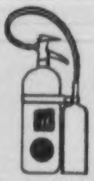
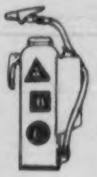
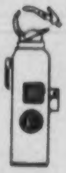


Magnifier

PS 79
PROPORTIONAL SCALE
NUMBER OF TIMES OF REDUCTION
PERCENTAGE OF ORIGINAL SIZE
SIZE OF ORIGINAL
REPRODUCTION SIZE

Proportion Wheel

Classes of Fires, Fire Extinguishers and Their Uses

CLASS OF FIRE	APPROVED TYPE OF EXTINGUISHER				
DECIDE THE CLASS OF FIRE YOU ARE FIGHTING... ...THEN CHECK THE COLUMNS TO THE RIGHT OF THAT CLASS	FOAM Solution of Aluminum Sulphate and Bicarbonate of Soda	CARBON DIOXIDE Carbon Dioxide Gas Under Pressure	SODA ACID Bicarbonate of Soda Solution and Sulphuric Acid	MULTI-PURPOSE DRY CHEMICAL	ORDINARY DRY CHEMICAL
A CLASS A FIRES USE THESE EXTINGUISHERS ORDINARY COMBUSTILES WOOD PAPER CLOTH ETC.		✗			✗
B CLASS B FIRES USE THESE EXTINGUISHERS FLAMMABLE LIQUIDS GREASE GASOLINE KETTLE FIRES			✗		
C CLASS C FIRES USE THESE EXTINGUISHERS ELECTRICAL EQUIPMENT MOTORS SWITCHES ETC.	✗		✗		

IMPORTANT! USING THE WRONG TYPE EXTINGUISHER FOR THE CLASS OF FIRE MAY BE DANGEROUS

Courtesy of NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

SHOP SAFETY
UNIT II

ASSIGNMENT SHEET #1--DESCRIBE THE STEPS TO BE TAKEN IN GIVEN ACCIDENT SITUATIONS

1. A student is cutting a window in a flat with a stripping knife and accidently slashes his finger. Describe the steps that should be taken immediately following the accident.

2. A fire starts in the electrical wiring in the shop. Describe the class of fire and the correct fire extinguisher(s) to use to put the fire out.

3. A student's bracelet gets caught in the press while the press is operating. What should be done?

SHOP SAFETY
UNIT II

ANSWERS TO ASSIGNMENT SHEET #1

1. Answer should include the following:
   - a. Administer first aid
   - b. Report accident to the instructor
   - c. Notify principal immediately
   - d. Take injured person to hospital emergency room
   - e. Notify parents
   - f. Have instructor fill out accident report form
2. Answer should include the following:
   - a. The fire is class C
   - b. The fire extinguisher: either multi-purpose, ordinary dry chemical, or carbon dioxide
3. Evaluated to the satisfaction of the instructor

SHOP SAFETY
UNIT II

NAME ______________________________

TEST

1. Match the terms on the right with the correct definitions.

______a. Immediate, temporary care given an accident victim until services of a physician can be obtained

______b. State or condition of being safe and free from danger, risk, or injury

______c. Any sudden, unintentional event which causes personal injury or damage

1. Safety
2. Accident
3. First aid

2. Select true statements concerning the proper safety rules to be practiced in the shop by placing an "X" in the appropriate blanks.

______a. Use tools and equipment only for their intended purpose

______b. Turn on the press as soon as you arrive at the shop

______c. Clean up spilled liquids at the end of the day

______d. Remove all metal jewelry when operating rotating equipment

______e. Clean the press and power equipment while they are operating

______f. Horseplay is permitted in the classroom but not in the shop

______g. Report any unsafe condition in the shop immediately

3. Complete the following sentences by placing the words on the right in the correct spaces.

a. Arrange all ______________ and equipment to permit safe and efficient operation.

b. Keep ______________ and supplies safely stacked and stored.

c. Keep all ______________ and accessories in cabinets or tool racks.

d. Dispose of or store all ______________ materials in safe containers.

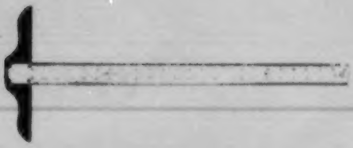
e. Keep all ______________ clean and free of debris at all times.

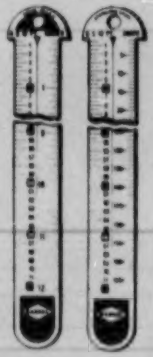
f. Check that adequate ______________ equipment and cleaning materials are on hand to insure that maximum cleaning efficiency can be maintained.

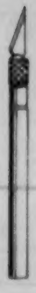
g. Participate in daily ______________ periods.

Floors
Materials
Cleanup
Machinery
Tools
Housekeeping
Combustible

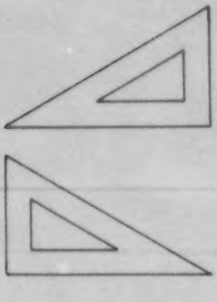
4. Identify the basic hand tools pictured below.

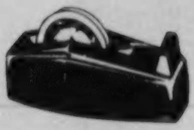


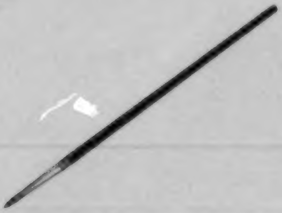




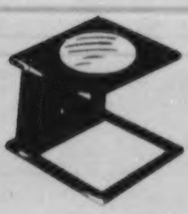
a.____________________ b.____________________ c.____________________

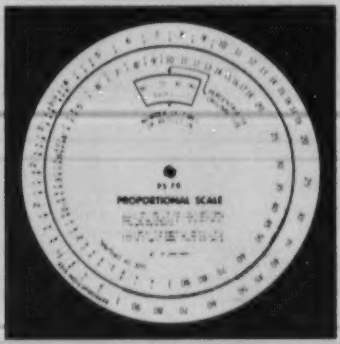


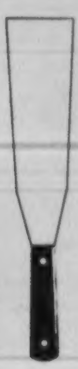




d.____________________ e.____________________ f.____________________




PROPORTIONAL SCALE



g.____________________ h.____________________ i.____________________

5. Select true statements concerning the do's and don'ts for using basic hand tools properly by placing an "X" in the appropriate blanks.

_____a. It is not proper to put any objects in your mouth

_____b. It is proper to carry and store stripping knives point down

_____c. It is proper to wave or throw objects, except those that are heavy or have pointed ends or edges

_____d. It is not proper to extend a knife while it is being carried

6. Select true statements concerning the do's and dont's of handling chemicals properly by placing an "X" in the appropriate blanks.

_____a. It is proper to pour water into the chemical instead of chemical into water

_____b. It is proper to wear rubber gloves when handling chemicals

_____c. It is proper to mix solutions near the eyes and face so that measurements can be seen

_____d. It is proper to place containers on edges of counters so that they are readily accessible

_____e. It is not proper to mix or weigh chemicals in darkroom unless strong ventilation is present

7. Match the colors of the safety color code on the right with their correct designations.

_____a. Designates location of safety and first aid equipment

_____b. Designates caution

_____c. Designates dangerous parts of equipment which may cut, crush, shock, or otherwise injure

_____d. Designates location of fire fighting equipment

_____e. Designates caution against starting equipment while it is being worked on or use of defective equipment

_____f. Highlights an area that might otherwise not be noticed

1. Red
2. Blue
3. Orange
4. Ivory
5. Green
6. Yellow

8. Match the classes of fires on the right with the correct definitions.

______ a. Fires that occur with flammable liquids

______ b. Fires that occur with ordinary combustible materials

______ c. Fires that occur in or near electrical equipment

______ d. Fires that occur with combustible metals

1. Class A
2. Class B
3. Class C
4. Class D

9. Match the types of fire extinguishers on the right with their characteristics.

______ a. 1) Selected dry chemicals under pressure
2) Can be used safely on all classes of fires

______ b. 1) Selected dry chemicals under pressure
2) Used only for class B and class C fires

______ c. 1) A solution of aluminum sulfate
2) Used for class A and class B fires

______ d. 1) Carbon dioxide gas under pressure
2) Used for class B and class C fires

______ e. 1) Bicarbonate of soda and sulphuric acid
2) Can be safely used only on class A fires

1. Carbon dioxide
2. Multi-purpose dry chemical
3. Foam
4. Soda acid
5. Ordinary dry chemical

10. List the general steps to be taken in case of an accident.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

f. ______________________________

g. ______________________________

11. Describe the steps to be taken in given accident situations.

(NOTE: If this activity has not been accomplished prior to the test, ask your instructor when it should be completed.)

SHOP SAFETY
UNIT II

ANSWERS TO TEST

1. a. 3
   b. 1
   c. 2

2. a, d, g

3. a. Machinery
   b. Materials
   c. Tools
   d. Combustible
   e. Floors
   f. Housekeeping
   g. Cleanup

4. a. T-square
   b. Line gauges
   c. Stripping knife
   d. Plastic triangles
   e. Tape dispenser
   f. Opaquing brush
   g. Magnifier
   h. Proportion wheel
   i. Ink knife

5. a, b, d

6. b, e

7. a. 5
   b. 6
   c. 3
   d. 1
   e. 2
   f. 4

8. a. 2
   b. 1
   c. 3
   d. 4

9. a. 2
   b. 5
   c. 3
   d. 1
   e. 4

10. a. Turn off power
    b. Administer first aid
    c. Report all accidents and injuries to the instructor no matter how minor
    d. Notify principal immediately
    e. Notify principal immediately
    f. Notify parents
    g. Have instructor fill out accident report

11. Evaluated to the satisfaction of the instructor

SHOP ORGANIZATION
UNIT III

UNIT OBJECTIVE

After completion of this unit, the student should be able to match job titles with correct job descriptions, arrange in sequence the production steps of a typical printing job, and select true statements concerning personnel control in a school shop organization. The student should also be able to make an organizational chart of a school shop and complete job tickets. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Name four main concerns of successful plant management.
2. Match job titles with descriptions of job duties.
3. Arrange in proper sequence the production steps of a typical printing job.
4. List items essential to proper job production control.
5. Arrange in proper sequence the steps for initiating a printing job.
6. Select true statements concerning personnel control in a school shop organization.
7. Make an organizational chart of a school shop.
8. Complete job tickets.

SHOP ORGANIZATION
UNIT III

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Make transparencies.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. Take field trips to different types of shops so that students may see different organizational structures.

VII. Distribute samples of job tickets and let students practice completing them.

VIII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

- A. Objective sheet
- B. Information sheets
- C. Transparency masters
  1. TM 1--Production Flow Chart
  2. TM 2--Essential Items in Job Production Control
  3. TM 3--Essential Items in Job Production Control (continued)
  4. TM 4--Essential Items in Job Production Control (continued)
  5. TM 5--Material Job Flow File
  6. TM 6--Sample Organizational Chart of a School Shop
- D. Assignment sheets
  1. Assignment Sheet #1--Make an Organizational Chart of a School Shop
  2. Assignment Sheet #2--Complete Job Tickets

E. Answers to assignment sheets

F. Test

G. Answers to test

II. References

A. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

B. Spence, Dr. Wm. D., and Vequist, Dr. David G. *Graphic Reproduction.* Peoria, IL 61615: Chas. A. Bennett, Co. Inc., 1980.

SHOP ORGANIZATION
UNIT III

INFORMATION SHEET

I. Four main concerns of successful plant management

  A. Safety

  B. Cleanliness

  C. Efficiency of operation

  D. Profit

  (NOTE: Keep in mind that wasted materials cost money.)

II. Job titles and descriptions of duties

  A. Manager--Organizes and supervises production in the shop or plant

  (NOTE: This role may also be titled supervisor, owner, superintendent, or foreman.)

  B. Sales personnel--Contacts customer and initiates job order through customer

  C. Estimator--Estimates the total cost of a printing job

  D. Copywriters--Write the copy for brochures or advertising campaigns

  E. Layout and design personnel--Design the layout for the printing job

  F. Photographer--Provides photographs and special photographic illustrations for jobs

  G. Artists--Provide special art and illustrations for printing jobs

  H. Mark-up personnel--Mark the type, style, and size designations for printing jobs

  I. Compositors--Compose or set type according to mark-up specifications

  J. Paste-up personnel--Put the components of the job onto the completed paste-up

  K. Proofreaders--Read the proofs at various stages of production to make sure there are no mistakes

  L. Camera operators--Provide the film negative of the printing job

  (NOTE: Camera operators also make proofs.)

INFORMATION SHEET

M. Strippers--Tape the negatives in their proper place on the printing mask or flat

N. Platemakers--Expose the plate and develop it so it is ready for the press

(NOTE: Platemakers also proof materials.)

O. Press operators--Prepare press for operation and run the finished plate on the press

P. Feeder and helper--Help press operator load paper table and unload delivery table

Q. Bindery personnel--Charged with bindery work, such as collating, folding, and stitching

R. Filing personnel--File flats and plates in customer job files

S. Billing personnel--Make out invoices and bill customers for completed work

T. Teacher--Instructs students in various offset printing job skills

III. Sequence of production steps of a typical printing job (Transparency 1)

A. Sales and estimate

B. Job order

C. Copywriter

D. Layout

E. Mark-up

F. Composition

G. Proofreading

H. Paste-up

I. Proofreading

J. Camera

K. Stripping

L. Pre-press proofing

INFORMATION SHEET

M. Platemaking

N. Press

O. Bindery

P. Shipping

O. Billing

IV. Essential items to proper job production control (Transparencies 2, 3, and 4)

A. Job order

B. Log book with job numbers

C. Color code tag for production board

D. Identified job material folder (or envelope)

E. Production board

V. Proper sequence for initiating a printing job

A. Fill out the complete job order form

B. Enter job in log book and assign number

C. Fill out color code tag for production board

(NOTE: The production board is an example; some organizations may use a different system.)

D. Mark material folder, insert job order and job material

(NOTE: Be sure all material is complete and note specialty items needed for a job.)

E. Put folder in proper station of material job flow file (Transparency 5)

F. Put color code tag on production board

VI. Personnel control in a school shop organization (Transparency 6)

A. Instructor--Responsible to school administration

B. Instructor's aide--Responsible to instructor and administration

C. Shop supervisor (student)--Responsible to aide, instructor, administration

INFORMATION SHEET

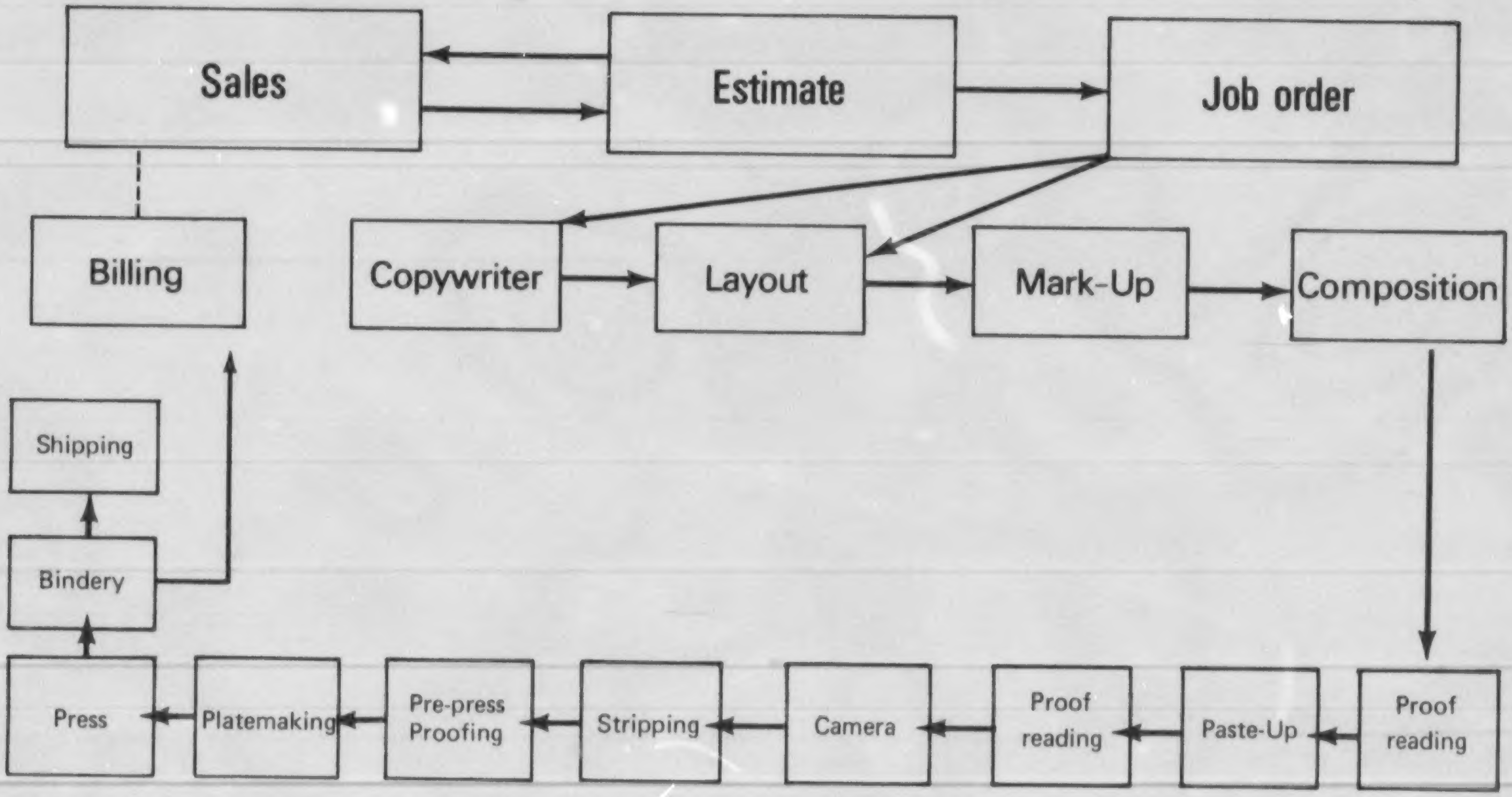
D. Assistant shop supervisor (student)--Responsible to shop supervisor, aide, instructor, administration

E. Crew chiefs (students)--Responsible to shop supervisor, assistant, aide, instructor, administration

F. Students--Responsible to crew chiefs, shop supervisor, assistant, aide, instructor and administration

(NOTE: Work and clean-up station assignments are rotated periodically so that each student has an opportunity to work at each station in the shop.)

Production Flow Chart



Sales

Estimate

Job order

Billing

Copywriter

Layout

Mark-Up

Composition

Shipping

Bindery

Press

Platemaking

Pre-press Proofing

Stripping

Camera

Proof reading

Paste-Up

Proof reading

TM 1

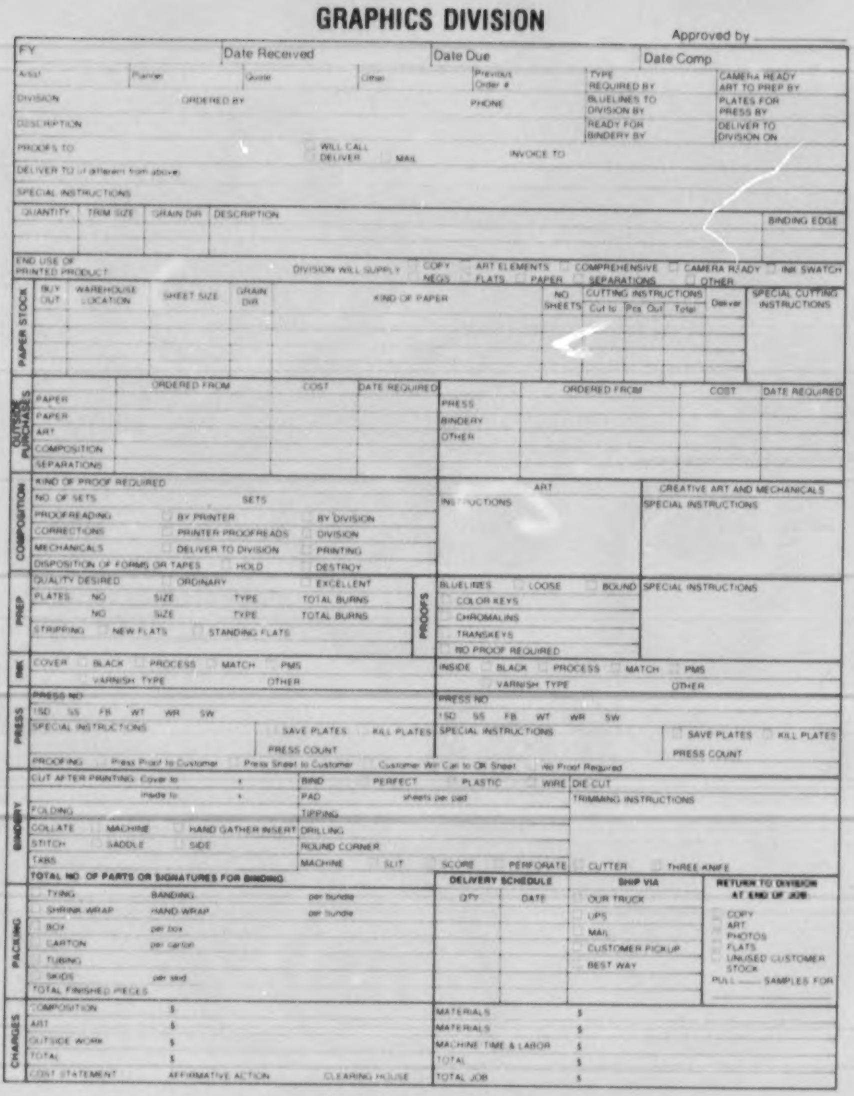
60

61

G I-53-A

G I - 55-A

Essential Items
In
Job Production Control



GRAPHICS DIVISION

Approved by ____

FY | Date Received | Date Due | Date Comp
Asst | Planner | Quote | Other | Previous Order #
TYPE REQUIRED BY | CAMERA READY ART TO PREP BY
DIVISION | ORDERED BY | PHONE
BLUELINES TO DIVISION BY | PLATES FOR PRESS BY
DESCRIPTION
READY FOR BINDERY BY | DELIVER TO DIVISION ON
PROOFS TO ☐ WILL CALL ☐ DELIVER ☐ MAIL | INVOICE TO
DELIVER TO (if different from above)
SPECIAL INSTRUCTIONS

QUANTITY	TRIM SIZE	GRAIN DIR	DESCRIPTION	BINDING EDGE

END USE OF PRINTED PRODUCT
DIVISION WILL SUPPLY ☐ COPY ☐ NEGS ☐ ART ELEMENTS ☐ FLATS ☐ PAPER ☐ COMPREHENSIVE ☐ SEPARATIONS ☐ CAMERA READY ☐ OTHER ☐ INK SWATCH

PAPER STOCK

BUY OUT	WAREHOUSE LOCATION	SHEET SIZE	GRAIN DIR	KIND OF PAPER	NO SHEETS	CUTTING INSTRUCTIONS Cut to	Pcs Out	Total	Deliver	SPECIAL CUTTING INSTRUCTIONS

OUTSIDE PURCHASES

	ORDERED FROM	COST	DATE REQUIRED
PAPER			
PAPER			
ART			
COMPOSITION			
SEPARATIONS			

	ORDERED FROM	COST	DATE REQUIRED
PRESS			
BINDERY			
OTHER			

COMPOSITION

KIND OF PROOF REQUIRED
NO. OF SETS | SETS
PROOFREADING ☐ BY PRINTER ☐ BY DIVISION
CORRECTIONS ☐ PRINTER PROOFREADS ☐ DIVISION
MECHANICALS ☐ DELIVER TO DIVISION ☐ PRINTING
DISPOSITION OF FORMS OR TAPES ☐ HOLD ☐ DESTROY

ART
INSTRUCTIONS

CREATIVE ART AND MECHANICALS
SPECIAL INSTRUCTIONS

PREP

QUALITY DESIRED ☐ ORDINARY ☐ EXCELLENT
PLATES NO SIZE TYPE TOTAL BURNS
NO SIZE TYPE TOTAL BURNS
STRIPPING ☐ NEW FLATS ☐ STANDING FLATS

PROOFS

BLUELINES ☐ LOOSE ☐ BOUND
☐ COLOR KEYS
☐ CHROMALINS
☐ TRANSKEYS
☐ NO PROOF REQUIRED

SPECIAL INSTRUCTIONS

INK

COVER ☐ BLACK ☐ PROCESS ☐ MATCH ☐ PMS
☐ VARNISH TYPE | OTHER
INSIDE ☐ BLACK ☐ PROCESS ☐ MATCH ☐ PMS
☐ VARNISH TYPE | OTHER

PRESS

PRESS NO
1SD SS FB WT WR SW
SPECIAL INSTRUCTIONS | ☐ SAVE PLATES ☐ KILL PLATES | PRESS COUNT
PRESS NO
1SD SS FB WT WR SW
SPECIAL INSTRUCTIONS | ☐ SAVE PLATES ☐ KILL PLATES | PRESS COUNT
PROOFING ☐ Press Proof to Customer ☐ Press Sheet to Customer ☐ Customer Will Call to OK Sheet ☐ No Proof Required

BINDERY

CUT AFTER PRINTING: Cover to x
inside to x
FOLDING
COLLATE ☐ MACHINE ☐ HAND GATHER INSERT
STITCH ☐ SADDLE ☐ SIDE
TABS
BIND ☐ PERFECT ☐ PLASTIC ☐ WIRE
PAD sheets per pad
TIPPING
DRILLING
ROUND CORNER
MACHINE ☐ SLIT ☐ SCORE ☐ PERFORATE
DIE CUT
TRIMMING INSTRUCTIONS
☐ CUTTER ☐ THREE KNIFE
TOTAL NO. OF PARTS OR SIGNATURES FOR BINDING

PACKING

☐ TYING | BANDING | per bundle
☐ SHRINK WRAP | HAND WRAP | per bundle
☐ BOX | per box
☐ CARTON | per carton
☐ TUBING
☐ SKIDS | per skid
TOTAL FINISHED PIECES

DELIVERY SCHEDULE QTY	DATE

SHIP VIA
☐ OUR TRUCK
☐ UPS
☐ MAIL
☐ CUSTOMER PICKUP
☐ BEST WAY

RETURN TO DIVISION AT END OF JOB
☐ COPY
☐ ART
☐ PHOTOS
☐ FLATS
☐ UNUSED CUSTOMER STOCK
PULL ___ SAMPLES FOR

CHARGES

COMPOSITION $
ART $
OUTSIDE WORK $
TOTAL $
COST STATEMENT ☐ AFFIRMATIVE ACTION ☐ CLEARING HOUSE
MATERIALS $
MATERIALS $
MACHINE TIME & LABOR $
TOTAL $
TOTAL JOB $

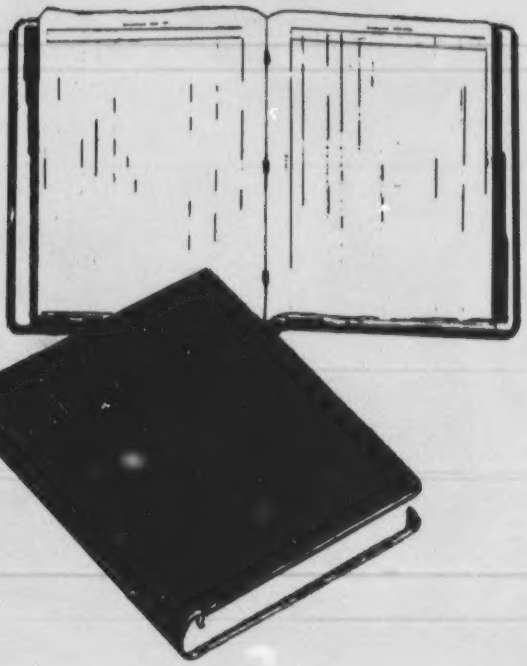
Sample Job Order Form

TM 2

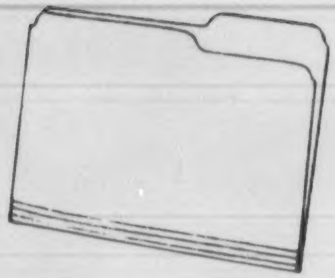
Essential Items
In
Job Production Control

(Continued)

Log Book

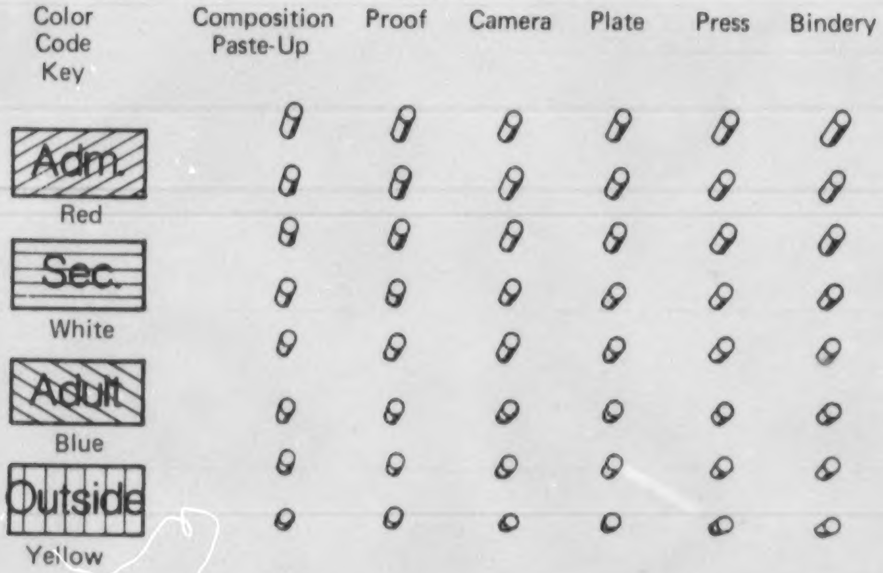


Job Material Folder

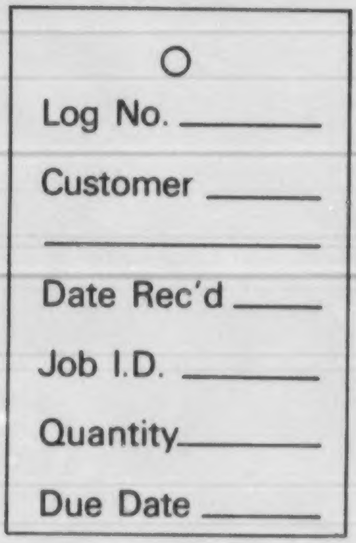


Essential Items in Job Production Control

(Continued)


Color Code Key
Composition Paste-Up
Proof
Camera
Plate
Press
Bindery
Adm.
Red
Sec.
White
Adult
Blue
Outside
Yellow

Production Board



○

Log No. ________

Customer ________

____

Date Rec'd ________

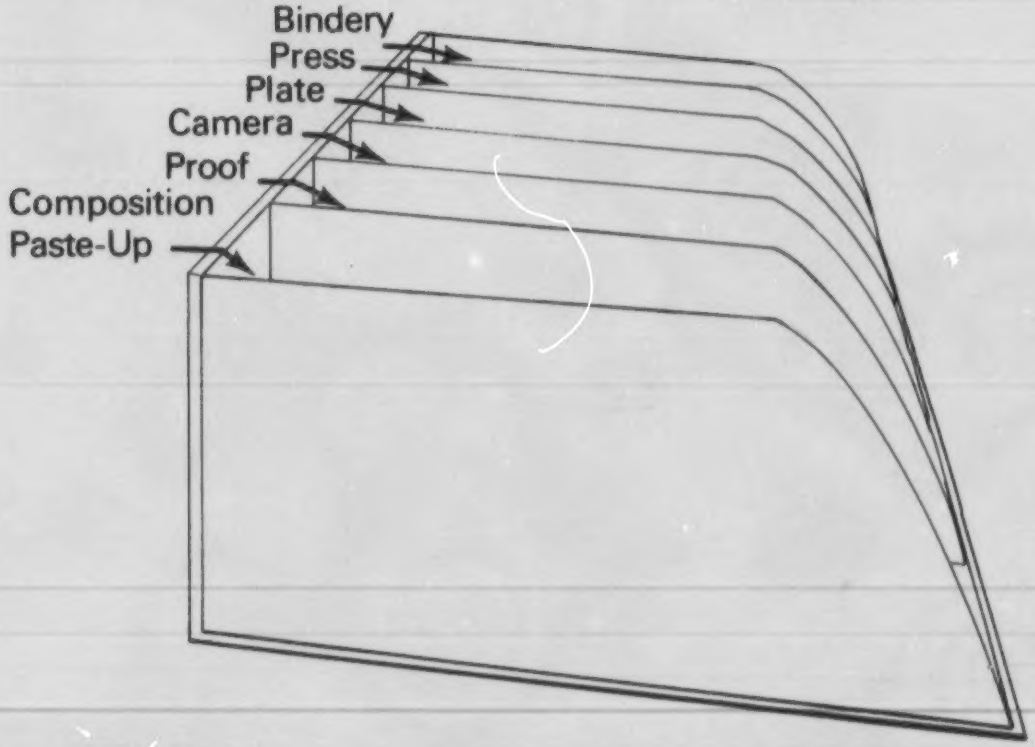
Job I.D. ________

Quantity ________

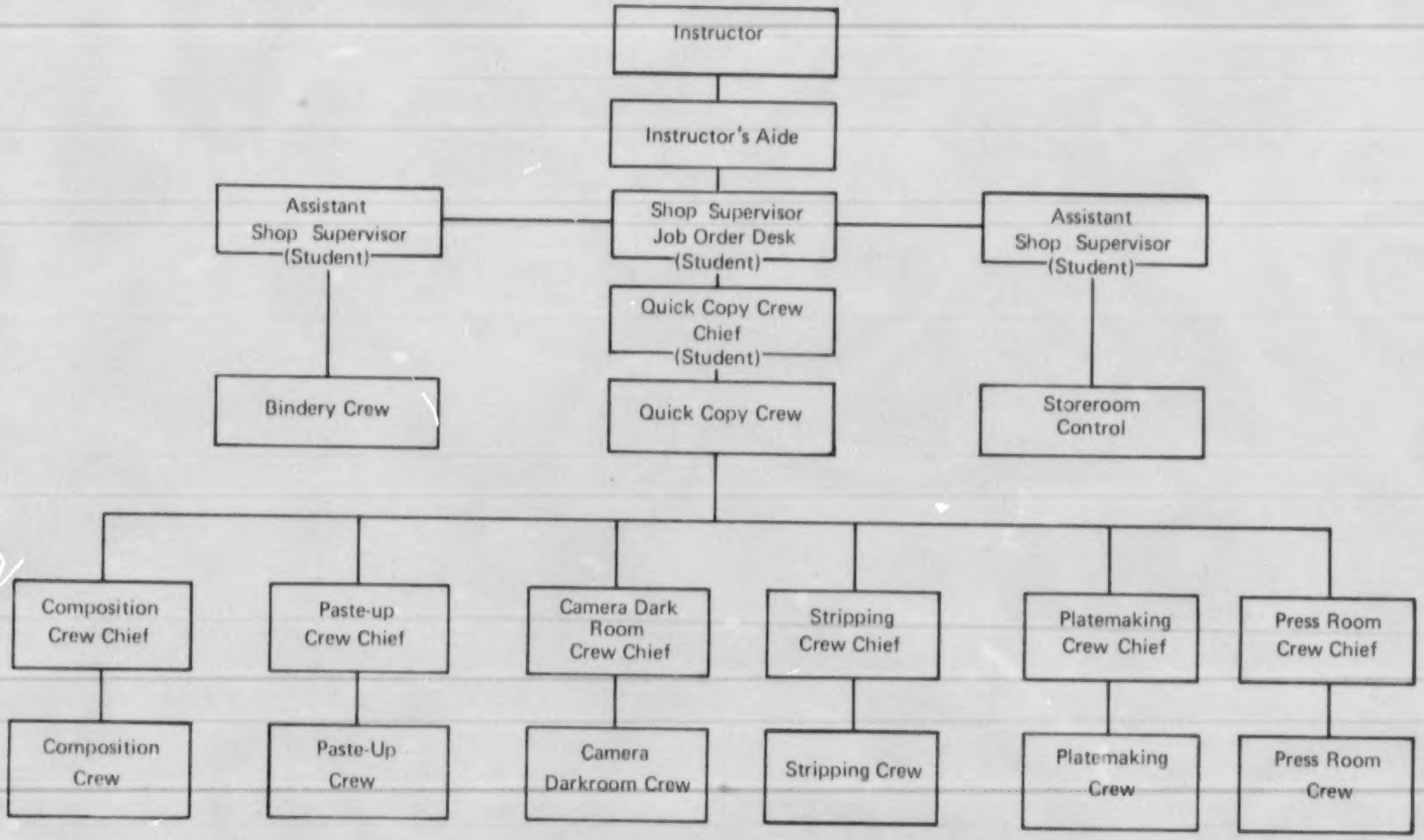
Due Date ________

Colored Index Tag

Material Job Flow File


Bindery
Press
Plate
Camera
Proof
Composition
Paste-Up

Sample Organizational Chart of a School Shop


Instructor
Instructor's Aide
Assistant Shop Supervisor (Student)
Shop Supervisor Job Order Desk (Student)
Assistant Shop Supervisor (Student)
Quick Copy Crew Chief (Student)
Bindery Crew
Quick Copy Crew
Storeroom Control
Composition Crew Chief
Paste-up Crew Chief
Camera Dark Room Crew Chief
Stripping Crew Chief
Platemaking Crew Chief
Press Room Crew Chief
Composition Crew
Paste-Up Crew
Camera Darkroom Crew
Stripping Crew
Platemaking Crew
Press Room Crew

SHOP ORGANIZATION
UNIT III

ASSIGNMENT SHEET #1--MAKE AN ORGANIZATIONAL CHART OF A SCHOOL SHOP

Directions: Using a block diagram, make an organizational chart showing all departments and work station assignments in a typical school printing shop.

SHOP ORGANIZATION
UNIT III

ASSIGNMENT SHEET #2--COMPLETE JOB TICKETS

Directions: Using information provided by your instructor, complete the two job tickets below.

(NOTE: The two job tickets are representative of types of job tickets found in printing shops.)

GRAPHICS DIVISION

Approved by ____________

FY | Date Received | Date Due | Date Comp.

Artist | Planner | Quote | Other | Previous Order # | TYPE REQUIRED BY | CAMERA READY ART TO PREP BY

DIVISION | ORDERED BY | PHONE | BLUELINES TO DIVISION BY | PLATES FOR PRESS BY

DESCRIPTION | READY FOR BINDERY BY | DELIVER TO DIVISION ON

PROOFS TO | ☐ WILL CALL ☐ DELIVER ☐ MAIL | INVOICE TO

DELIVER TO (if different from above)

SPECIAL INSTRUCTIONS

QUANTITY | TRIM SIZE | GRAIN DIR | DESCRIPTION | BINDING EDGE

END USE OF PRINTED PRODUCT | DIVISION WILL SUPPLY ☐ COPY ☐ ART ELEMENTS ☐ COMPREHENSIVE ☐ CAMERA READY ☐ INK SWATCH ☐ NEGS ☐ FLATS ☐ PAPER ☐ SEPARATIONS ☐ OTHER

PAPER STOCK

BUY OUT	WAREHOUSE LOCATION	SHEET SIZE	GRAIN DIR	KIND OF PAPER	NO SHEETS	CUTTING INSTRUCTIONS Cut to	Pcs Out	Total	Deliver	SPECIAL CUTTING INSTRUCTIONS

OUTSIDE PURCHASES

	ORDERED FROM	COST	DATE REQUIRED		ORDERED FROM	COST	DATE REQUIRED
PAPER				PRESS			
PAPER				BINDERY			
ART				OTHER			
COMPOSITION							
SEPARATIONS							

COMPOSITION

KIND OF PROOF REQUIRED

NO. OF SETS ____ SETS

PROOFREADING ☐ BY PRINTER ☐ BY DIVISION

CORRECTIONS ☐ PRINTER PROOFREADS ☐ DIVISION

MECHANICALS ☐ DELIVER TO DIVISION ☐ PRINTING

DISPOSITION OF FORMS OR TAPES ☐ HOLD ☐ DESTROY

ART

INSTRUCTIONS

CREATIVE ART AND MECHANICALS

SPECIAL INSTRUCTIONS

PREP

QUALITY DESIRED ☐ ORDINARY ☐ EXCELLENT

PLATES NO SIZE TYPE TOTAL BURNS

NO SIZE TYPE TOTAL BURNS

STRIPPING ☐ NEW FLATS ☐ STANDING FLATS

PROOFS

BLUELINES ☐ LOOSE ☐ BOUND

☐ COLOR KEYS

☐ CHROMALINS

☐ TRANSKEYS

☐ NO PROOF REQUIRED

SPECIAL INSTRUCTIONS

INK

COVER ☐ BLACK ☐ PROCESS ☐ MATCH ☐ PMS

☐ VARNISH TYPE OTHER

INSIDE ☐ BLACK ☐ PROCESS ☐ MATCH ☐ PMS

☐ VARNISH TYPE OTHER

PRESS

PRESS NO

1SD SS FB WT WR SW

SPECIAL INSTRUCTIONS ☐ SAVE PLATES ☐ KILL PLATES

PRESS COUNT

PRESS NO

1SD SS FB WT WR SW

SPECIAL INSTRUCTIONS ☐ SAVE PLATES ☐ KILL PLATES

PRESS COUNT

PROOFING ☐ Press Proof to Customer ☐ Press Sheet to Customer ☐ Customer Will Call to OK Sheet ☐ No Proof Required

BINDERY

CUT AFTER PRINTING Cover to x

Inside to x

FOLDING

COLLATE ☐ MACHINE ☐ HAND GATHER/INSERT

STITCH ☐ SADDLE ☐ SIDE

TABS

BIND ☐ PERFECT ☐ PLASTIC ☐ WIRE

PAD sheets per pad

TIPPING

DRILLING

ROUND CORNER

MACHINE ☐ SLIT ☐ SCORE ☐ PERFORATE

DIE CUT

TRIMMING INSTRUCTIONS

☐ CUTTER ☐ THREE-KNIFE

TOTAL NO. OF PARTS OR SIGNATURES FOR BINDING

PACKING

☐ TYING BANDING per bundle

☐ SHRINK WRAP HAND WRAP per bundle

☐ BOX per box

☐ CARTON per carton

☐ TUBING

☐ SKIDS per skid

TOTAL FINISHED PIECES

DELIVERY SCHEDULE QTY	DATE	SHIP VIA
		☐ OUR TRUCK
		☐ UPS
		☐ MAIL
		☐ CUSTOMER PICKUP
		☐ BEST WAY

RETURN TO DIVISION AT END OF JOB

☐ COPY

☐ ART

☐ PHOTOS

☐ FLATS

☐ UNUSED CUSTOMER STOCK

PULL ____ SAMPLES FOR

CHARGES

COMPOSITION $

ART $

OUTSIDE WORK $

TOTAL $

COST STATEMENT ☐ AFFIRMATIVE ACTION ☐ CLEARING HOUSE ☐

MATERIALS $

MATERIALS $

MACHINE TIME & LABOR $

TOTAL $

TOTAL JOB $

ASSIGNMENT SHEET #2

DATE RECEIVED ________ DATE DUE ________ DATE CHANGED TO ________ JOB NUMBER ________

DIVISION ________ ORDERED BY ________ PHONE ________

DESCRIPTION ________ DELIVER TO ________

FRONT ONLY ________ FRONT/BACK ________ NUMBER OF PAGES ________ SIZE ____ X ____ NUMBER OF COMPLETED COPIES ________

COVER STOCK ________ INK COLOR ________

TEXT STOCK ________ INK COLOR ________

ART WORK STANDING ART ________ CORRECTIONS FOR STANDING ART ________ NEW ART ________ PASTE UP ________ LAYOUT ________

MECHANICAL ________ NUMBER OF COLORS ________ BLUE LINE ____ PMT ________ MATERIAL ________

EXPLANATION ________ LABOR ________

________ TOTAL ART CHARGES $ ________

COMPOSITION LEADING ________ COLUMN WIDTH ________ FONT STYLE ________ OTHER ________

OPERATOR ________ Total No. of UNITS Recording Full ________ 1/2 ________ MATERIALS ________ MATERIALS ________

OPERATOR ________ Total No. of UNITS C. & T. Full ________ 1/2 ________ ________ LABOR ________

OPERATOR ________ Total No. of UNITS Playout Full ________ 1/2 ________ ________ TOTAL $ ________

CAMERA Number of Line Shots ________ No. of Half Tones ________ Number of Reverses ________ OTHER ________

NUMBER AND SIZE OF FILM ________

STRIPING NUMBER AND SIZE OF FILM ________

PLATE NUMBER AND SIZE OF TYPE ________

PRESS PRESS ________ RUNS ____ 1 sd ____ SS ____ FB ____ WT ____ WR ____ SW ____

________ RUNS OF ________ X ________ ________ RUNS OF ________ X ________

________ RUNS OF ________ X ________ ________ RUNS OF ________ X ________

EXPLANATION ________

BINDERY

CUTTER ____ X ____ For Press PUNCH 3 Hole ________ STITCH Upper Left ________ PAD Reg ________

____ X ____ For Press GBC ________ Saddle ________ NCR ________

____ X ____ Trim Size Other ________ Side ________ Sets or Pad ____ $ ________

FOLD ____ X ____ Perfect Bind ________ Box ________ Wrap ________ Skid ________ $ ________

Collate ________ Collate and Stitch ________ Collate, Stitch and Fold ________ Extra Stitch for Mail ________

Tabs ________ Fold Out Sheets ________ Progress Charts ________ Notebooks ________ Other Material ________

No. Sheets Teachers ________ No. Sheets Students ________

EXPLANATION ________ Wrapping Cost ________

MATERIALS ________

TOTAL MATERIALS ________ $ ________

TOTAL LABOR ________ $ ________

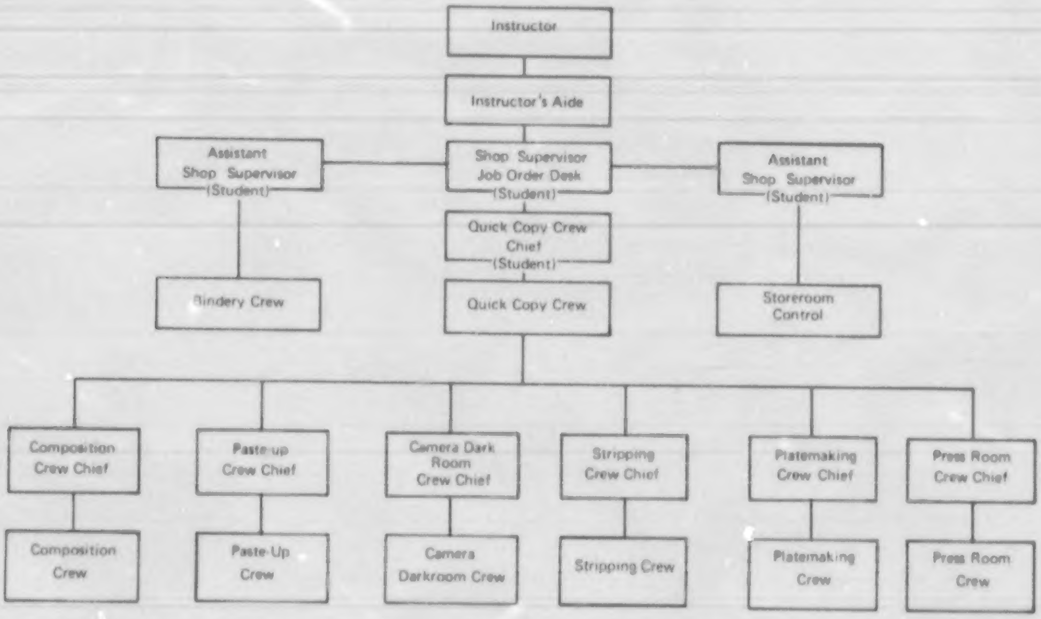
TOTAL ________ $ ________

SHOP ORGANIZATION
UNIT III

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

The answer should look like the schematic below:


Instructor
Instructor's Aide
Assistant Shop Supervisor (Student)
Shop Supervisor Job Order Desk (Student)
Assistant Shop Supervisor (Student)
Quick Copy Crew Chief (Student)
Bindery Crew
Quick Copy Crew
Storeroom Control
Composition Crew Chief
Paste-up Crew Chief
Camera Dark Room Crew Chief
Stripping Crew Chief
Platemaking Crew Chief
Press Room Crew Chief
Composition Crew
Paste-Up Crew
Camera Darkroom Crew
Stripping Crew
Platemaking Crew
Press Room Crew

Assignment Sheet #2

Evaluated to the satisfaction of the instructor

SHOP ORGANIZATION
UNIT III

NAME ______________________________

TEST

1. Name four main concerns of successful plant management.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

2. Match the job titles on the right with the correct job description of duties.

_____ a. Organizes and supervises production in the shop or plant

_____ b. Contacts customer and initiates job order through customer

_____ c. Estimates the total cost of a printing job

_____ d. Write the copy for brochures or advertising campaigns

_____ e. Design the layout for the printing job

_____ f. Provides photographs and special photographic illustrations for jobs

_____ g. Provide special art and illustrations for printing jobs

_____ h. Mark the type, style, and size designations for printing jobs

_____ i. Compose or set type according to mark-up specifications

_____ j. Put the components of the job onto the completed paste-up

_____ k. Read the proofs at various stages of production to make sure there are no mistakes

1. Artists
2. Paste-up personnel
3. Proofreaders
4. Compositors
5. Mark-up personnel
6. Photographer
7. Camera operators
8. Layout and design personnel
9. Strippers
10. Copywriters
11. Platemakers
12. Estimator

_____l. Provide the film negative of the printing job

_____m. Tape the negatives in their proper place on the printing mask or flat

_____n. Expose the plate and develop it so it is ready for the press

_____o. Prepare press for operation and run the finished plate on the press

_____p. Help press operator load paper table and unload delivery table

_____q. Charged with bindery work, such as collating, folding, and stitching

_____r. File flats and plates in customer job files

_____s. Make out invoices and bill customers for completed work

_____t. Instructs students in various offset printing job skills

13. Press operators
14. Sales personnel
15. Manager
16. Bindery personnel
17. Teacher
18. Filing personnel
19. Billing personnel
20. Feeder and helper

3. Arrange in proper sequence the production steps of a typical printing job.

_____a. Press

_____b. Stripping

_____c. Proofreading

_____d. Sales and estimate

_____e. Billing

_____f. Bindery

_____g. Camera

_____h. Paste-up

_____i. Composition

_____j. Mark-up

_____k. Job order

_____l. Copywriter

_____m. Pre-press proofing

_____n. Shipping

_____o. Layout

_____p. Platemaking

_____q. Proofreading

4. List three items essential to proper job production control.

a. ______________________________

b. ______________________________

c. ______________________________

5. Arrange in proper sequence the steps for initiating a printing job.

_____a. Put color code tag on production board

_____b. Enter job in log book and assign number

_____c. Fill out color code tag for production board

_____d. Fill out complete job order form

_____e. Put folder in proper station of material job flow file

_____f. Mark material folder, insert job order and material

6. Select true statements concerning personnel control in a school shop organization by placing an "X" in the appropriate blanks.

_____a. The instructor is responsible to the school administration

_____b. The shop supervisor is responsible only to the instructor

_____c. Assistant shop supervisor is responsible only to the shop supervisor

_____d. Crew chiefs are responsible to the shop supervisor, assistant supervisor, aides, instructors and the administration

_____e. Students are responsible to crew chiefs, supervisors, assistant supervisor, aides, instructors, and the administration

7. Make an organizational chart of a school shop.

8. Complete job tickets.

(NOTE: If these activities have not been completed prior to the test, ask your instructor when they should be completed.)

SHOP ORGANIZATION
UNIT III

ANSWERS TO TEST

1. a. Safety
   b. Cleanliness
   c. Efficiency of operation
   d. Profit

2.

a.	15	f.	6	k.	3	p.	20
b.	14	g.	1	l.	7	q.	16
c.	12	h.	5	m.	9	r.	18
d.	10	i.	4	n.	11	s.	19
e.	8	j.	2	o.	13	t.	17

3.

a.	14	f.	15	k.	2	p.	13
b.	11	g.	10	l.	3	q.	7 or 9
c.	7 or 9	h.	8	m.	12		
d.	1	i.	6	n.	16		
e.	17	j.	5	o.	4		

4. Any three of the following:
   a. Job order
   b. Log book with job numbers
   c. Color code tag for production board
   d. Identified job material folder
   e. Production board

5.

a.	6	d.	1
b.	2	e.	5
c.	3	f.	4

6. a, d, e

7. Evaluated to the satisfaction of the instructor

8. Evaluated to the satisfaction of the instructor

PHOTO-OFFSET THEORY
UNIT IV

UNIT OBJECTIVE

After completion of this unit, the student should be able to match the five major printing processes with the correct descriptions and select true statements concerning the basic chemical principles of offset printing. The student should also be able to test the ink-water principle on an offset plate. This knowledge will be evidenced by correctly performing the procedures outlined in the job sheet and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms related to basic photo-offset theory with the correct definitions.
2. Match the five major printing processes with the correct descriptions.
3. Select true statements concerning the basic offset printing process.
4. Name types of materials on which printing is done.
5. Select terms synonymous with offset printing.
6. Select true statements concerning the basic photo-offset process.
7. Demonstrate the ability to test the ink-water principle on an offset plate.

PHOTO-OFFSET THEORY
UNIT IV

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information sheet.

III. Make transparency.

IV. Discuss unit and specific objectives.

V. Discuss information sheet.

VI. Demonstrate and discuss the procedures outlined in the job sheet.

VII. Show a demonstration of the offset printing process with a press operation.

VIII. An excellent booklet on rotogravure entitled "The Magic of Rotogravure" (by Bill Hosokawa, 1971) is available from The Denver Post, Inc., 650 15th Street, Denver, CO 80201.

IX. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

   A. Objective sheet

   B. Information sheet

   C. Transparency Master 1--The Photo-Offset Process

   D. Job Sheet #1--Test the Ink-Water Principle on an Offset Plate

   E. Test

   F. Answers to test

II. References

   A. Cogoli, John E., *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

   B. *Lithographers Manual,* Ed. Charles Shapiro. Pittsburgh, PA: Graphic Arts Technical Foundation, 1968.

PHOTO-OFFSET THEORY
UNIT IV

INFORMATION SHEET

I. Terms and definitions

A. Offset--Printed image is transferred, or offset, from a surfaced plate to a rubber blanket cylinder and then to the paper surface

B. Plate--A thin sheet of paper, metal, or plastic which carries the chemically treated image

C. Image area--That part of the plate which carries the ink to print the image

D. Non-image area--That part of the plate which carries only water and remains clean

E. Planographic--Printing from a flat surface in which image and non-image areas are at same level

F. Blanket--A smooth rubber surface which transfers the image from the plate to the sheet

G. Plate cylinder--That part of the press which holds the offset plate

H. Blanket cylinder--The part of an offset press which contains the rubber blanket

I. Impression cylinder--The part of the offset press which applies pressure for image transfer to the paper

J. Ink-water balance--The proper amounts of ink and water applied to a plate to produce a clear image

K. Mirror image--The backward or reverse image as it appears on the blanket

INFORMATION SHEET

II. Five major printing processes

A. Letterpress--Printing directly from raised letters, inked and pressed against paper surface (Figure 1)

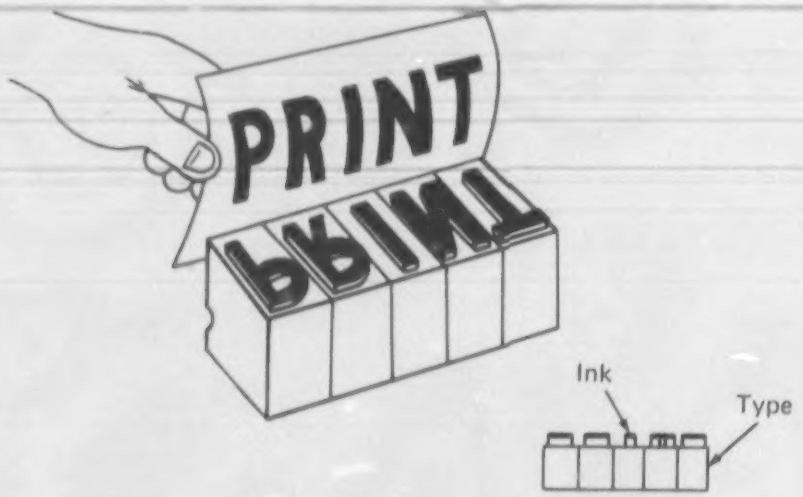

PRINT
Ink
Type

FIGURE 1 Letterpress printing

B. Rotogravure (Engraving)--Printing from an acid-etched image into surface of a copper cylinder (Figure 2)

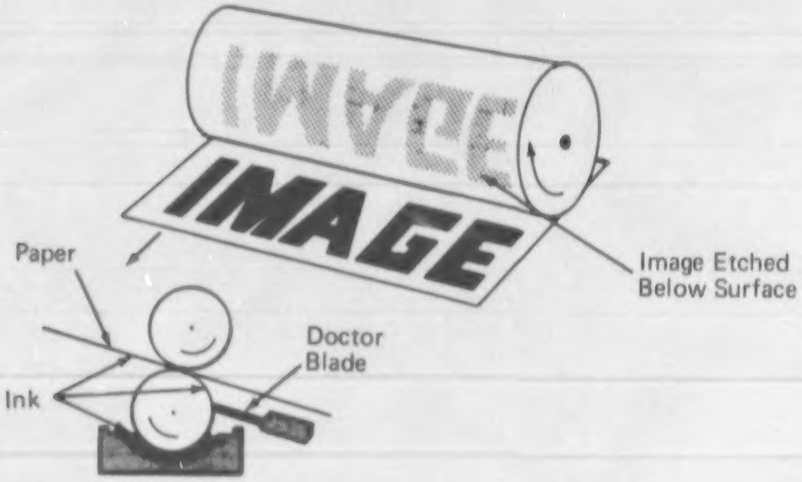


IMAGE
Paper
Image Etched Below Surface
Doctor Blade
Ink

FIGURE 2 Rotogravure process

INFORMATION SHEET

C. Electrostatic--Printing from a plate whose surface coating is electrostatically charged (Figure 3)

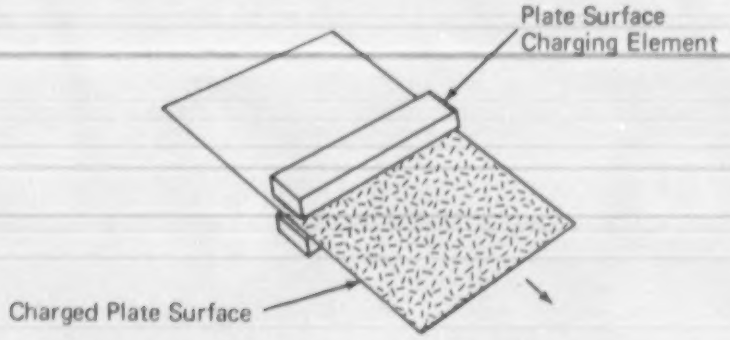


Plate Surface
Charging Element
Charged Plate Surface

FIGURE 3 The entire plate surface coating is electrostatically charged

D. Screen process--Printing directly from a stencil through a finely woven screen (Figure 4)

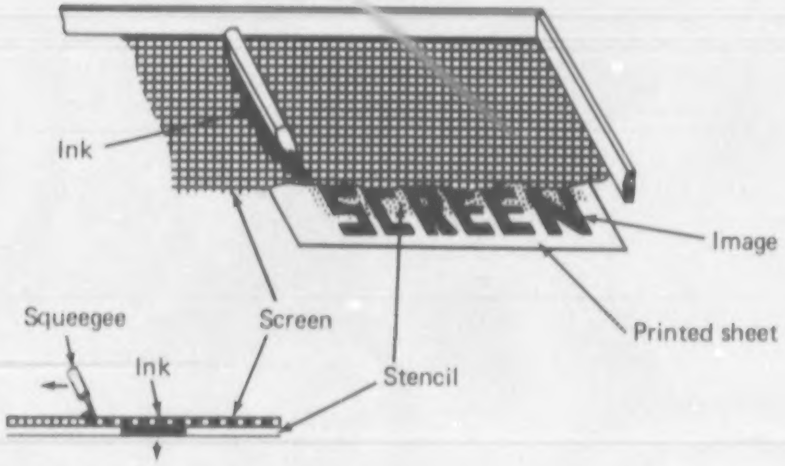

Ink
SCREEN
Image
Printed sheet
Squeegee
Screen
Ink
Stencil

FIGURE 4 Screen process

INFORMATION SHEET

E. Offset printing--The process of printing from a flat surface with the image and non-image areas kept separated by chemistry (Figure 5)

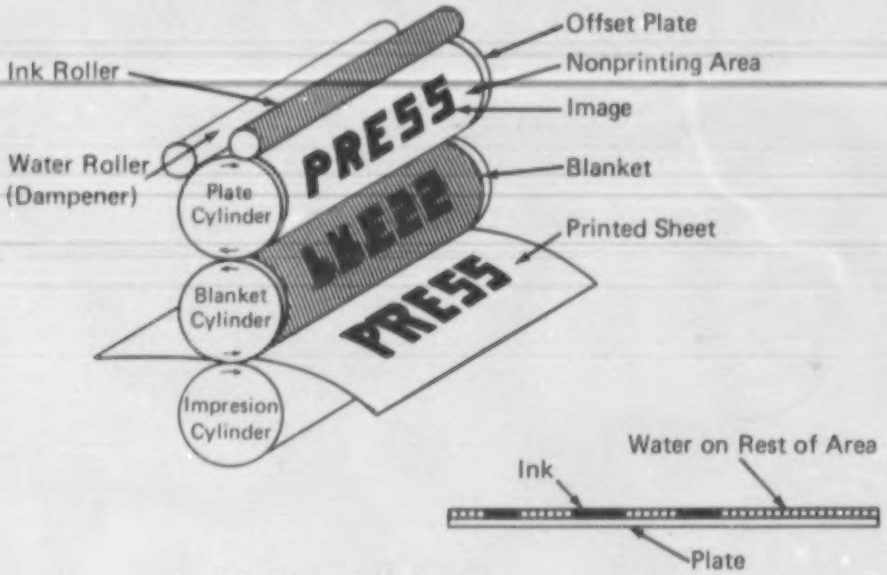

Offset Plate
Nonprinting Area
Ink Roller
Image
Water Roller (Dampener)
Blanket
Plate Cylinder
PRESS
PRESS
Printed Sheet
Blanket Cylinder
PRESS
Impresion Cylinder
Water on Rest of Area
Ink
Plate

FIGURE 5 Offset printing

III. The basic photo-offset process (Transparency 1)

A. The image may be drawn by hand, typed, or photographically prepared

B. The image area of the plate surface is chemically treated to accept ink and reject water

C. The non-image area of the plate surface is chemically or mechanically treated to accept water and reject ink

D. During the press operation ink and water are both continually applied to the plate surface

E. The image is right-reading on the surface of the offset plate

F. The image is transferred (or offset) from the plate to the blanket

G. The image on the blanket is a mirror image, or wrong-reading

H. The blanket carries the image to the printing material

I. The printing (or impression) takes place as the sheet of paper passes between the blanket cylinder and the impression cylinder

INFORMATION SHEET

J. The impression cylinder forces against the blanket to cause the image to be printed on the sheet

K. A clear, clean image is produced by maintaining the proper ink-water balance application to the plate

IV. Materials on which printing is done

A. Paper

B. Wood

C. Glass

D. Cloth

E. Metal

F. Rubber

G. Plastic

H. Leather

V. Terms synonymous with offset printing

A. Photo-offset

B. Lithography

C. Photo-lithography

D. Photo-offset lithography

E. Planographic printing

F. Offset lithography

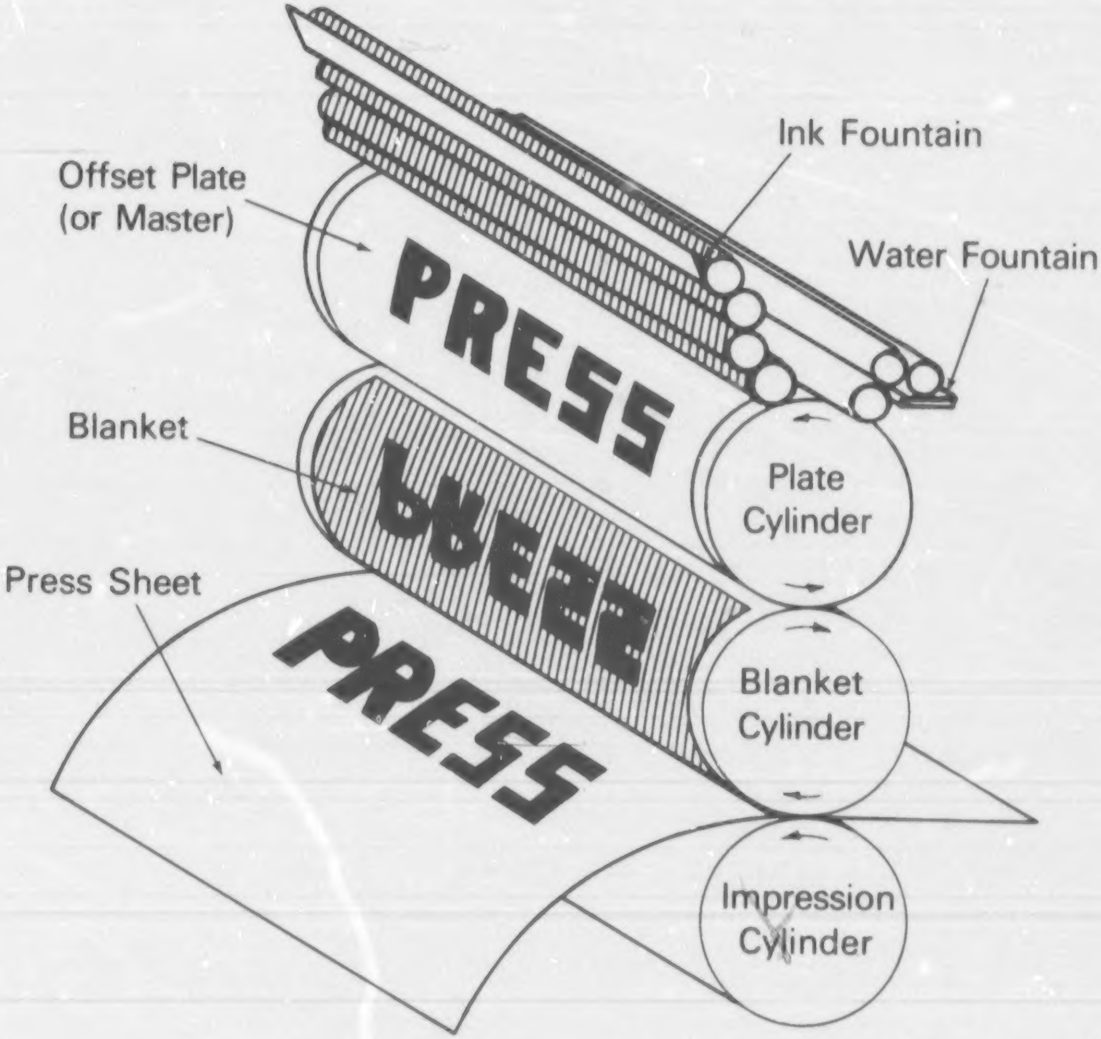
VI. Basic chemical principles of offset printing

A. Offset printing can be done from a level surface plate because of a basic chemical fact: oil (or grease) and water will not easily mix

B. The main component (or vehicle) of most offset inks is heat-treated linseed oil

C. In addition to the ink, which sticks to the image area, fountain solution which is mostly water is applied to the plate to keep the non-image area clean

The Photo-Offset Process


Ink Fountain
Offset Plate (or Master)
Water Fountain
PRESS
Blanket
Plate Cylinder
Press Sheet
PRESS
PRESS
Blanket Cylinder
Impression Cylinder

Schematic drawing of an offset press. Printing progresses from plate, to blanket, to paper .

PHOTO-OFFSET THEORY
UNIT IV

JOB SHEET #1--TEST THE INK-WATER PRINCIPLE ON AN OFFSET PLATE

I. Tool and materials

  A. Developed offset plate

  B. Two cotton pads

  C. Thimble-size portion of black ink

  D. Clean work table

  E. Water bottle

  F. Clean-up solvents

  G. Preservatives

II. Procedure

  A. Lay plate on table with image up

  B. Wet cotton pad and wipe plate clean

  C. Apply small quantity of ink to wet cotton pad

  D. Rub plate thoroughly with the inked, wet cotton pad

  E. Write down on a sheet of paper what happened to the image area of the plate

  F. Write down what happened to non-image area of plate

  G. Turn sheet in to instructor

  H. Clean and gum the plate

  I. Return plate to instructor

PHOTO-OFFSET THEORY
UNIT IV

NAME____________________________

TEST

1. Match the terms on the right with the correct definitions.

______a. Printed image is transferred, or offset, from a surfaced plate to a rubber blanket cylinder and then to the paper surface

______b. A thin sheet of paper, metal, or plastic which carries the chemically treated image

______c. That part of the plate which carries the ink to print the image

______d. That part of the plate which carries only water and remains clean

______e. Printing from a flat surface in which image and non-image areas are at same level

______f. A smooth rubber surface which transfers the image from the plate to the sheet

______g. That part of the press which holds the offset plate

______h. The part of an offset press which contains the rubber blanket

______i. The part of the offset press which applies pressure for image transfer to the paper

______j. The proper amounts of ink and water applied to a plate to produce a clear image

______k. The backward or reverse image as it appears on the blanket

1. Plate
2. Image area
3. Offset
4. Planographic
5. Mirror image
6. Blanket
7. Ink-water balance
8. Impression cylinder
9. Plate cylinder
10. Non-image area
11. Blanket cylinder

2. Match the five major printing processes on the right with correct descriptions.

______a. Printing directly from raised letters, inked and pressed against paper surface

______b. Printing from an acid etched image into surface of a copper cylinder

1. Screen process
2. Offset printing

______c. Printing from a plate whose surface coating is electrostatically charged

______d. Printing directly from a stencil through a finely woven screen

______e. The process of printing from a flat surface with the image and non-image areas kept separated by chemistry

3. Letterpress

4. Electrostatic

5. Rotogravure

3. Select true statements concerning the basic photo-offset process by placing an "X" in the appropriate blanks.

______a. The image may be drawn by hand, typed, or photographically prepared

______b. The image area of the plate surface is chemically treated to accept ink and reject water

______c. During the press operation ink and water are alternately applied to plate surface

______d. The image is wrong-reading on the surface of the offset plate

______e. The image is transferred from the plate to the blanket

______f. The image on the blanket is right-reading

______g. The blanket carries the image to the printing material

______h. The printing takes place as the sheet of paper passes between the blanket cylinder and the impression cylinder

______i. The impression cylinder forces against the blanket to cause the image to be printed on the sheet

______j. A clear, clean image is produced by maintaining the proper ink-water balance application to the plate

4. Name six types of material on which printing is done.

a. ______________________________

b. ______________________________

c. ______________________________

d. ______________________________

e. ______________________________

f. ______________________________

5. Select terms synonymous with offset printing by placing an "X" in the appropriate blanks.

_____a. Planographic printing

_____b. Photo-lithography

_____c. Rotogravure printing

_____d. Offset lithography

6. Select true statements concerning the basic chemical principles of offset printing by placing an "X" in the appropriate blanks.

_____a. The main component of most offset inks is heat-treated linseed oil

_____b. Offset printing can be done from a level surface plate because of the basic chemical fact that oil and water easily mix

_____c. In addition to the ink, which sticks to the image area, fountain solution which is mostly water is applied to the plate to keep the non-image area clean

7. Demonstrate the ability to test the ink-water principle on an offset plate.

(NOTE: If this activity has not been accomplished prior to the test, ask your instructor when it should be completed.)

PHOTO-OFFSET THEORY
UNIT IV

ANSWERS TO TEST

1. a. 3
   b. 1
   c. 2
   d. 10
   e. 4
   f. 6
   g. 9
   h. 11
   i. 8
   j. 7
   k. 5

2. a. 3
   b. 5
   c. 4
   d. 1
   e. 2

3. a, b, e, g, h, i, j

4. Any six of the following:

   a. Paper
   b. Wood
   c. Glass
   d. Cloth
   e. Metal
   f. Rubber
   g. Plastic
   h. Leather

5. a, b, d

6. a, c

7. Performance skills evaluated to the satisfaction of the instructor

LEGAL RESTRICTIONS
UNIT V

UNIT OBJECTIVE

After completion of this unit, the student should be able to name the three elements of the copyright notice and state the procedure for obtaining permission to reproduce copyright material. The student should also be able to request copyright release and determine local printing trade customs. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms related to legal restrictions with the correct definitions.
2. Name the three elements of a copyright notice.
3. Select true statements concerning the U.S. copyright law.
4. Select true statements concerning the four tests for judging the "fair use" of copyrighted material.
5. Select true statements concerning provisions for the use of photographs of people for advertising purposes.
6. State the procedure for obtaining permission to reproduce copyrighted material.
7. Select items not eligible for copyright.
8. Select items that may be copyrighted.
9. Select true statements concerning printing trade customs.
10. Request copyright release.
11. Determine local printing trade customs.

LEGAL RESTRICTIONS
UNIT V

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Discuss unit and specific objectives.

IV. Discuss information and assignment sheets.

V. If possible, a guest speaker representing the Treasury Department could discuss the topic of counterfeiting.

VI. Have students find examples of libel and slander, or obtain them and show students.

VII. Write to U.S. Copyright Office (Register of Copyrights, Library of Congress, Washington, D.C. 20559) and obtain current copyright information. Circulars 1, 3, 5, and 60 should be requested.

VIII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

  A. Objective sheet

  B. Information sheet

  C. Assignment sheets

    1. Assignment Sheet #1--Request Copyright Release

    2. Assignment Sheet #2--Determine Local Printing Trade Customs

  D. Test

  E. Answers to test

II. References:

A. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

B. Spence, Dr. Wm. P., and Vequist, Dr. David G. *Graphic Reproduction.* Peoria, IL 61615: Chas. A. Bennett Co., Inc., 1980.

C. *Guide to Copyright, New Law, New Directions.* Washington, D.C. 20036: Association for Educ. Com. and Tech, and National Audio-Visual Association, 1977.

D. *The Lithographers Manual*, ed. Charles Shapiro. 4th ed. Pittsburgh: The Graphic Arts Technical Foundation, Inc., 1968.

LEGAL RESTRICTIONS
UNIT V

INFORMATION SHEET

I. Terms and definitions

   A. Copyright--Form of protection given by law to authors of literary, dramatic, musical, artistic, and other similar works

   B. Counterfeiting--To make an imitation or copy of a genuine article with the intent to deceive

   C. Common-law literary property--Unpublished maps, books, photographs, and other works protected by state laws against copying

   D. Fair use--A limitation on the exclusive rights of copyright owners

   E. Libel--A written or oral statement that conveys an unjustly unfavorable impression

      (NOTE: Libelous statements are usually written and intended to expose one to public contempt.)

   F. Slander--A false and defamatory oral statement about a person

   G. Pornography--Writing or illustrations considered obscene

II. Three elements of copyright notice

   A. The word "copyright", the abbreviation "copr.," or the symbol ©

   B. The name of the copyright owner

   C. The year of publication

III. The U. S. copyright law

   A. A new copyright law went into effect on January 1, 1978

   B. Under the old law a copyright was good for 28 years and could be renewed for another 28 years

   C. Copyrights first obtained under the old law may be renewed for 47 years and/or a maximum of 75 years

   D. Work copyrighted after January 1, 1978 is protected for the author's lifetime plus 50 years

IV. Four tests for judging the "fair use" of copyrighted material

   A. The purpose and character of the use

      Examples: The use for profit, for educational purposes

INFORMATION SHEET

   B. The nature of the copyrighted works

   C. The amount of material used in relation to the total material

   D. The effect of the use on the commercial market value of the material

V. Provisions for using photographs of people for advertising purposes

   A. Written permission must be obtained if faces are recognizable

   B. In using pictures of children (minors) written permission of legal guardian must be obtained

   C. Failure to obtain written permission may result in claim of invasion of privacy and demand for payment

VI. Procedure for obtaining permission to reproduce copyrighted material

   A. Determine owner of copyright

   B. Explain specific material to be used and to what extent

   C. Explain purpose of copying material

   Examples: For sale, for classroom work

   D. If in doubt about copyright, owner as well as publisher of material should be contacted

   E. If owner's permission is obtained, copied work should carry a courtesy or credit line so the source of material is acknowledged

VII. Items not eligible for copyright

   A. Names

   B. Titles

   C. Slogans

   D. Familiar symbols

   E. Familiar designs

   F. Time cards

   G. Account books

   H. Calendars

   I. Rulers

   J. Sporting event schedules

   K. Graph paper

INFORMATION SHEET

VIII. Items that may be copyrighted

- A. Books
- B. Brochures
- C. Catalogs
- D. Leaflets
- E. Pamphlets
- F. Greeting cards
- G. Single pages
- H. Newspapers
- I. Magazines
- J. Maps
- K. Drawings
- L. Paintings
- M. Photographs
- N. Musical compositions
- O. Labels
- P. Film strips
- Q. Motion pictures

IX. Printing trade customs

- A. Orders--Regular orders cannot be cancelled unless an agreement to cover printer's loss has been made
- B. Experimental work--Experimental work will carry a charge

  Examples: Sketches, drawings, composition, plates
- C. Sketches, dummies, negatives, and plates--Remain exclusive property of printer unless otherwise agreed to in writing
- D. Alterations--Changes made by customer will carry an additional charge
- E. Approval of proofs--Printer not responsible for errors if work is completed with customer's approval

INFORMATION SHEET

F. Press proofs--An extra charge will be made if a delay on the press results from awaiting customer's approval of press proofs

G. Color proofing--Because of differences in equipment and conditions, a reasonable variation in color between color proofs and completed job shall constitute an acceptable delivery

H. Quantities--Overruns or underruns of up to 10% shall constitute an acceptable delivery; excess or deficiency shall be charged or credited to customer

I. Customer's property--Customer shall be charged for handling and storing own paper stock or printed matter held over thirty days; all property stored at customer's risk

J. Delivery--Unless otherwise specified, price quoted in single shipment, F.O.B. customer's local place of business; estimates based on continuous and uninterrupted delivery of completed order

K. Terms--Net cash thirty days unless otherwise specified; claims to be made within five days of receipt of goods

L. Delays in delivery--All agreements contingent upon fires, strikes, accidents, wars, floods, or other causes beyond printer's control

M. Paper stock furnished by customer--All paper stock shall be properly packed, free of dirt, tears, and of proper specifications; if not, delays in production shall be charged to customer

(NOTE: The above customs are examples of what one may observe in the printing trade; different printers may add to or amend the customs.)

LEGAL RESTRICTIONS
UNIT V

ASSIGNMENT SHEET #1--REQUEST COPYRIGHT RELEASE

Directions: After locating the copyright in a textbook at school or home, write a sample letter requesting copyright release of a particular illustration in the textbook.

LEGAL RESTRICTIONS
UNIT V

ASSIGNMENT SHEET #2--DETERMINE LOCAL PRINTING TRADE CUSTOMS

Directions: Visit a local printing plant and determine their printing trade customs. Write the information below and hand in to your instructor.

LEGAL RESTRICTIONS
UNIT V

NAME______________________________

TEST

1. Match terms related to legal restrictions on the right with the correct definitions.

_____a. Form of protection given by law to authors of literary, dramatic, musical, artistic, and other similar works

_____b. To make an imitation or copy of a genuine article with the intent to deceive

_____c. Unpublished maps, books, photographs, and other works protected by state laws against copying

_____d. A limitation on the exclusive rights of copyright owners

_____e. Writing or illustrations considered obscene

_____f. A written or oral statement that conveys an unjustly unfavorable impression

_____g. A false and defamatory oral statement about a person

1. Common-law literary property
2. Fair use
3. Copyright
4. Counterfeiting
5. Libel
6. Slander
7. Pornography

2. Name the three elements of a copyright notice.

a. ____

b. ____

c. ____

3. Select true statements concerning the U. S. copyright law by placing an "X" in the appropriate blanks.

_____a. A new copyright law went into effect January 1, 1978

_____b. Under the old law, a copyright was good for 100 years

_____c. Copyrights first obtained under the old law may be renewed for a maximum of 75 years

_____d. Material copyrighted since January 1, 1978 is protected for the author's lifetime plus 50 years

4. Select true statements concerning the four tests for judging the "fair use" of copyrighted material by placing an "X" in the appropriate blanks.

   _____a. One test for judging "fair use" is the amount of material used in relation to the total material

   _____b. One must consider the nature of the copyrighted works

   _____c. The literary significance of the work must be considered

   _____d. The effect of the use on the commercial market value of the material must be considered

5. Select true statements concerning the provisions for the use of photographs of people for advertising purposes by placing an "X" in the appropriate blanks.

   _____a. In using pictures of children, written permission of legal guardian must be obtained

   _____b. Permission is not needed if faces are recognizable

   _____c. Failure to obtain written permission may result in claim of invasion of privacy and demand for payment

6. State the procedure for obtaining the permission to reproduce copyrighted material.

7. Select items that are not eligible for copyright by placing an "X" in the appropriate blanks.

   _____a. Names

   _____b. Familiar designs

   _____c. Newspapers

   _____d. Paintings

   _____e. Graph paper

8. Select items that may be copyrighted by placing an "X" in the appropriate blanks.

   _____a. Maps

   _____b. Motion pictures

   _____c. Greeting cards

   _____d. Time cards

   _____e. Photographs

9. Select true statements concerning printing trade customs by placing an "X" in the appropriate blanks.

_____a. Printer is not responsible for errors if work is completed with customer's approval

_____b. An extra charge will be made if a delay on the press results from awaiting customer's approval of press proofs

_____c. Experimental work shall be done free of charge

_____d. Overruns or underruns of up to 10% shall be charged or credited to the customer

_____e. Terms shall be net cash thirty days unless otherwise specified, and claims must be made within five days of receipt of goods

_____f. All agreements are contingent upon fires, strikes, accidents, wars, floods, or other causes beyond the printer's control

_____g. There shall be no variation in color between color proofs and the completed job

_____h. Changes made by the customer shall be made free of charge

_____i. All sketches, dummies, negatives, and plates shall be returned to the customer after work is completed

_____j. Regular orders cannot be cancelled unless an agreement to cover the printer's loss has been made

_____k. Customer shall be charged for handling and storing own paper stock or printed matter held over thirty days, and at customer's risk

10. Request copyright release.

11. Determine local printing trade customs.

(NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

LEGAL REQUIREMENTS
UNIT V

ANSWERS TO TEST

1. a. 3
   b. 4
   c. 1
   d. 2
   e. 7
   f. 5
   g. 6

2. Answer should include the following:

   a. The word "copyright", the abbreviation "copr.," or the symbol ©
   b. The name of the copyright owner
   c. The year of publication

3. a, c, d

4. a, b, d

5. a, c

6. Answer should include the following:

   a. Determine owner of copyright
   b. Explain specific material to be used and to what extent
   c. Explain purpose of copying material
   d. If in doubt about copyright, owner and publisher should be contacted
   e. If owner's permission is obtained, copied work should carry a courtesy or credit line so the source of material is acknowledged

7. a, b, e

8. a, b, c, e

9. a, b, e, f, j, k

10. Evaluated to the satisfaction of the instructor

11. Evaluated to the satisfaction of the instructor

APPLYING FOR A JOB
UNIT VI

UNIT OBJECTIVE

After completion of this unit, the student should be able to prepare a resume and write a letter of application for an offset printing job. The student should also be able to complete an application form and write a follow-up letter for a job in offset printing. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with applying for a job with the correct definitions.
2. Select means of locating job openings.
3. List three methods of applying for a job.
4. Select items of information that may be asked for on an application.
5. Distinguish between employer and employee expectations.
6. Select the personal attributes or attitudes an employer looks for during a personal interview.
7. Select examples of proper conduct during a job interview.
8. Prepare a resume.
9. Write a letter of application for an offset printing job.
10. Complete an application form for a job as an offset printer.
11. Prepare a personal portfolio.
12. Practice interview questions.
13. Make an appointment by phone for an offset printing job interview.
14. Write a follow-up letter or make a follow-up phone call after an interview for an offset printing job.
15. Evaluate an offset printing job offer.
16. Compare job opportunities.

APPLYING FOR A JOB
UNIT VI

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Discuss unit and specific objectives.

IV. Discuss information and assignment sheets.

V. Provide good and bad examples of various resumes and application forms and discuss.

VI. Invite a personnel director to discuss job interviewing techniques.

VII. Lead a discussion on reasons why some people lose their jobs.

VIII. Lead a group of students in role-playing a job interview, emphasizing proper conduct and attire.

IX. Provide opportunity to take sample employment test.

X. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

  A. Objective sheet

  B. Information sheet

  C. Assignment sheets

    1. Assignment Sheet #1--Prepare a Resume

    2. Assignment Sheet #2--Write a Letter of Application for an Offset Printing Job

    3. Assignment Sheet #3--Complete an Application Form for a Job as an Offset Printer

    4. Assignment Sheet #4--Prepare a Personal Portfolio

    5. Assignment Sheet #5--Practice Interview Questions

    6. Assignment Sheet #6–Make an Appointment by Phone for an Offset Printing Job Interview

7. Assignment Sheet #7--Write a Follow-up Letter or Make a Follow-up Phone Call After an Interview for an Offset Printing Job

8. Assignment Sheet #8--Evaluate an Offset Printing Job Offer

9. Assignment Sheet #9--Compare Job Opportunities

D. Test

E. Answers to test

II. References:

A. Blackledge, Walter L,; Blackledge, Ethel H.; and Keely, Helen J. *You and Your Job.* Cincinnati: South-Western Publishing Company, 1967.

B. Kimbrell, Grady, and Vineyard, Ben S. *Succeeding in the World of Work.* Bloomington, IL: McKnight Publishing Company, 1970.

C. *Occupational Child Development.* Stillwater, OK: Mid-America Vocational Curriculum Consortium, 1975.

D. Hawkinson, Bruce. *Graphic Arts-A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech Division of New Mexico State Department of Education, 1975.

E Davis, Ronald D., Hill, Billy W., and Yancey, Bruce J. *Basic Drafting, Book One.* Stillwater, OK: Mid-America Vocational Curriculum Consortium, 1981.

APPLYING FOR A JOB
UNIT VI

INFORMATION SHEET

I. Terms and definitions

- A. Awards--Recognition received for outstanding achievement
- B. Extra-curricular activities--The clubs, organizations, and social or church groups in which one participates
- C. Fringe benefits--The extras provided by an employer such as paid vacations, sick leave, and insurance protection
- D. Qualifications--The experience, education, and physical characteristics which suit a person to a job
- E. Resume--A brief typed summary of one's qualifications and experiences that is used in applying for a job
- F. Vocational preparation--Any vocational courses taken and skills one has learned in school or through work experience

II. Means of locating job openings

- A. Classified ads
- B. Employment offices

  (NOTE: You can use state employment offices or private offices.)
- C. Local labor union business office
- D. School officials

  (NOTE: Your teacher and counselor or employment coordinator will be glad to help you.)
- E. Workers in offset printing occupations

  (NOTE: Current workers may sometimes know of openings that are not advertised elsewhere.)

III. Methods of applying for a job

- A. Letter
- B. Telephone
- C. In person

INFORMATION SHEET

IV. Information that may be asked for on an application

- A. Name and address
- B. Phone number
- C. Social security number
- D. Age, height, weight
- E. Education
- F. Experience
- G. Next of kin
- H. Previous employers
- I. Reason for leaving last job
- J. Type of job for which one is applying
- K. References
- L. Resume (optional)
- M. General physical health

V. Expectations of the employer and employee

- A. Employer expects
  1. Cooperation
  2. Honesty
  3. Initiative
  4. Willingness to learn
  5. Willingness to follow directions
  6. Dependability
  7. Enthusiasm
  8. Acceptance of criticism
  9. Loyalty and respect

INFORMATION SHEET

10. Full day's work for a full day's pay
11. Notification of termination

B. Employee expects

1. Salary
2. Safe working conditions
3. Training
4. Introduction to co-workers
5. Explanation of policies, rules, and regulations
6. Duty changes
7. Evaluation of work
8. Discipline for breaking rules
9. Honest relationship
10. Notification if employment is terminated
11. Respect

VI. Personal attributes or attitudes an employer looks for during a personal interview

A. Enthusiasm and interest

(NOTE: This includes taking pride in your work and being willing to do your share or more if needed.)

B. Dedication and dependability

(NOTE: This involves being at work on time and regularly. It also means you should follow directions readily.)

C. Alertness, quickness of mind

(NOTE: You should always look out for dangerous situations that could injure workers or damage property. You should be constantly looking for more efficient working practices.)

D. Honesty and integrity

(NOTE: All employees should give truthful information, both to their employer and customers.)

INFORMATION SHEET

E. Desire to work

F. Desire to help others

G. Desire to improve one's self

(NOTE: Good employees are always looking for ways to increase their knowledge. It will benefit both the employer and the employee.)

VII. Proper conduct during the interview

A. Greet interviewer with a warm smile

B. Call interviewer by the formal title, i.e., Mr., Mrs., or Miss Jones

C. Introduce self

D. Shake interviewer's hand firmly

E. Be seated only after interviewer has asked you to be seated

F. Sit and stand erect; do not lean against the wall, a chair, or the desk

G. Do not put a hat or coat on the interviewer's desk

H. Let the interviewer take the lead in the conversation

I. Answer questions completely

J. Be polite and courteous

(NOTE: Do not interrupt. Say "Yes, sir/ma'am" or "No, sir/ma'am" when addressed.)

K. Have resume and examples of work available for quick reference

L. Make an extra effort to express one's self clearly and distinctly

(NOTE: Take time to think through every answer, use proper grammar, do not swear, avoid use of slang, and look the interviewer in the eye.)

M. Be sincere and enthusiastic

N. Avoid irritating or distracting habits

(NOTE: This includes such things as smoking, chewing gum, eating candy, giggling or squirming in chair, finger tapping and/or swinging a crossed leg.)

INFORMATION SHEET

O. Do not try to flatter the interviewer

P. Tell the truth about qualifications and experiences

Q. Speak well or not at all of former employers and associates

R. Be positive

S. Accept competition gracefully

T. Watch for a sign that the interview is over

U. Thank the interviewer

V. Leave promptly at completion of interview

W. Make contacts alone

(NOTE: Taking two or three friends will not help you get a job.)

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #1--PREPARE A RESUME

Directions: Prepare a resume using the standards and example provided below as references.

Standards for a resume

1. Logically organized
2. Neatly typed
3. Error free
4. In outline form
5. Limited to one page if possible
6. Honest listing of qualifications and experience

Example:

Name: Pat L. Smith
Address: 774 E. Adams St., Anywhere, U.S.A. 77704
Telephone: 377-3303

Age: 18 years
Height: 5' - 8"
Weight: 160 pounds
Health: Excellent
Marital Status: Single

Education: Expect to graduate from high school May 19___

Subjects studied:
Offset Printing--2 years (1080 hours)
Typing--2 semesters
Art--2 semesters
Basic drafting--2 semesters
Industrial arts wood working--2 semesters

Student activities:
President, Senior class
President, VICA
Treasurer, Baptist Youth Fellowship

Work experience:
Offset printing pressman, Jones Printing Co., Summer 1980
Offset Printing 1979-80, all phases of offset printing.
Mr. Sammy Slavedriver, Instructor

ASSIGNMENT SHEET #1

References:

Mr. Sammy Slavedriver
Offset Printing Instructor
Anywhere High School
Anywhere, U.S.A. 77704

Mr. John Lotsaspark
Supervisor
Jones Printing Company
2330 Lake Shore Drive
Anywhere, U.S.A. 77704

Mr. Jimmie Smith
Youth Director
Park View Baptist Church
711 Fellowship Circle
Anywhere, U.S.A. 77704

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #2--WRITE A LETTER OF APPLICATION FOR AN OFFSET PRINTING JOB

Directions: Using the letter standards, information to be included, and example below, write a letter of application.

A. Make sure the letter meets the standards below:

(NOTE: Your instructor will be glad to help you.)

1. Attractive form
2. Logical arrangement of information
3. Free from smudges or typographical errors
4. Free from spelling or grammatical errors
5. Brief and to the point--Leave the details for the resume
6. Positive in tone
7. Clearly expressed ideas

B. The following information should be included in a letter of application

1. Type of position for which one is applying
2. Reason interested in position and firm
3. Ways one's training meets the employer's needs
4. Explanation of personal qualifications
5. Mention of resume

ASSIGNMENT SHEET #2

Example:

Mr. John Jones
Personnel Director
Jones Printing Company
Box 19
Anywhere, U.S.A. 77704

Dear Mr. Jones:

Please consider me for the job of press operator that you advertised in the Daily Chronicle.

The skills I have learned in my high school vocational offset printing course should qualify me for this job. I have had experience in all of the basic skills required in offset printing, including safety.

I will be graduating from high school in May, and would like to become an offset printer. A more complete description of my qualifications is given in the enclosed resume.

I would appreciate the opportunity to interview any time at your convenience. I can be reached by phone at 377-3303 after 3:30 p.m. or by mail at 774 East Adams Street, Anywhere, U.S.A. 77704.

Sincerely yours,

Pat L. Smith

Encl. 1

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #3--COMPLETE AN APPLICATION FORM FOR A JOB AS AN OFFSET PRINTER

Complete the following application form using the guidelines below. Use information corresponding to the classified ad and to your letter of application. Use information about yourself from your resume.

(NOTE: Although each business uses its own form, general rules of preparation apply to any form.)

1. Be prepared
    a. Take a good ink pen with you
    b. Take copies of resume
2. Look over entire form before starting to write; do not hurry
3. Follow directions
    a. Note whether information is to be printed or handwritten
    b. Complete all directions
4. Write or print clearly, neatly, and legibly
5. Answer briefly
6. Be honest
7. Answer all questions

    (NOTE: If questions do not apply to you, write Not Applicable or NA in the space to show that you did not overlook the question.)
8. Include complete information; use resume
9. Recheck application when finished
10. Avoid cross-outs and obvious erasure marks
11. Do not list any restrictions to the geographical area in which you would work unless you absolutely will not consider other geographical areas
12. Use the word "open" for questions about minimum salary since most employers pay standardized rates and will not negotiate on this
13. Make copy of application, if possible

ASSIGNMENT SHEET #3

APPLICATION FOR EMPLOYMENT

DATE ______________

Name ______________________________ SS # ______________
(Last) (First) (Middle)

Present address ______________________________ Telephone # ______________
Street Address City

Phone where you can be reached if not at above number Telephone # ______________

Are there any periods during the year when you will not be available for work? Yes ____ No ____ When? ______________

What is the earliest date you will be available to start work? ______________

Are you licensed or certified by any trade or profession? Yes ____ No ____ Kind of License? ______________

Have you worked for the State Department of Vocational and Technical Education before? Yes ____ No ____ When? ______________

How did you hear of employment opportunities at Vo-Tech?

- ____ Self-referral
- ____ Advertisement
- ____ Friend or Relative
- ____ Employment Agency
- ____ Other

Position Desired: First preference will be given first consideration

1. ______________
2. ______________
3. ______________

Is there a minimum salary acceptable? Yes ____ No ____ If yes, what amount? ______________

How long do you wish employment? Years ____ Months ____

I will accept:
Full-time ____ Part-time ____ Temporary ____ (6 mos. or less)

If part-time, what hours can you work? ______________

How do you feel you are qualified for the position(s) applied for?

____

____

____

____

EDUCATION: List in order the educational institutions you have attended if applicable

Dates From	To	Name of Institution	Major & Minor Courses Pursued	Degree or Certificate
High School				
College or Univ.				
Vocational, Technical or Trade Schools				

May we contact your present Employer for References?

Employer ____________ Address ____________
(Present or Most Recent) Street City State
Phone ____________
Name and title of supervisor ____________ From Month ______ Year ______
Your job and description of duties ____________ To Month ______ Year ______
____________ Pay $ ______ Per ______
Reason for terminating this Employment ____________

Employer ____________ Address ____________
Street City State
Phone ____________
Name and title of supervisor ____________ From Month ______ Year ______
Your job and description of duties ____________ To Month ______ Year ______
____________ Pay $ ______ Per ______
Reason for terminating this Employment ____________

Employer ____________ Address ____________
Street City State
Phone ____________
Name and title of supervisor ____________ From Month ______ Year ______
Your job and a description of duties ____________ To Month ______ Year ______
____________ Pay $ ______ Per ______
Reason for terminating this Employment ____________

REFERENCES

1. ____________
Name Address Phone
2. ____________
Name Address Phone
3. ____________
Name Address Phone
4. ____________
Name Address Phone
5. ____________
Name Address Phone

The above information is requested to become acquainted with your qualifications and IS NOT an offer of employment.

I certify that all of the information stated in this application is true to the best of my knowledge and belief, and I authorize you to refer to any former employers or others to verify the statements made.

____
Signature

EQUAL OPPORTUNITY EMPLOYER

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #4--PREPARE A PERSONAL PORTFOLIO

A portfolio is a group of samples of a person's work. Such work is then made available to a prospective employer at the time of an interview so that he/she can see examples of the quality work that you do.

Prepare your personal portfolio for use in a job application. Be sure to remember the following:

1. Select a wide variety of work

   (NOTE: A job may require many different kinds of skills. A wide variety of samples will help the employer to see that you are qualified to do more than just one job.)

2. Select samples of your best work

   (NOTE: To use samples of less than quality work would defeat the purpose of the portfolio. Show only samples of good work.)

3. Place your identification on all pieces included in the portfolio

   (NOTE: An employer may choose to compare the work of various prospective employees.)

4. Place all samples in some type of a case or covering

   (NOTE: This is essential to protect the samples while being moved to new locations. Be sure to put your name on the outside.)

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #5--PRACTICE INTERVIEW QUESTIONS

The following are some additional questions which might be asked when applying for various jobs. Keep the assignment sheet to review before going on any actual interview.

(NOTE: Questions about your personal life may not legally be asked. In fact, it is illegal for an employer to ask your maiden name or your father's surname if you are a female applicant; your marital status; who lives with you; the church you attend or the name of your spiritual leader; how many children you have, their ages, or who will care for them while you are at work; whether you own or rent your residence; whether you have ever had your wages garnished; and whether you have ever been arrested. However, many interviewers, particularly in smaller businesses, may ask such questions. Whether or not you choose to answer the questions depends on how much you want the job.)

How would you answer the following questions? Why do you think each question might be asked?

1. Where do you go to school? When will you graduate?
2. Do you (did you) earn any of your own expense money while in school?
3. Why did you leave your previous job(s)?
4. What did you like best and what did you like least about your classes?

   (NOTE: This could be asked about teachers, jobs, or employers.)
5. What books have your read lately? What are your favorite magazines?
6. Are you in good health?
7. What do you expect to be doing five or ten years from now? What is your chosen field of work?
8. At what salary do you expect to start?
9. What are some of your special abilities? What skills do you possess? What tools or equipment can you operate?
10. How would you rate your training for this job? Very good? Fair?
11. What personal characteristics do you think are needed to succeed in your vocation?

ASSIGNMENT SHEET #5

12. In what area do you need the most improvement?

13. Do you like to work with other people or do you work best alone?

14. Do you have any questions you want to ask us?

15. Do you think your extracurricular activities were worth the time you devoted to them?

16. How could you contribute to our organization? Why should we hire you?

17. Tell us about your family and any plans for marriage or further education.

    (NOTE: REMEMBER: Legally, you do not have to answer this question. However, it is a good idea to prepare an answer in case such a question is asked.)

    Examples: "My family includes a younger sister and my parents, with whom I live. My plans for marriage are undecided at this time, and I'm hoping that the experience gained by being an employee of your company will help me to decide about furthering my education."

    rather than

    "Quite frankly, I regard this information as personal and choose not to answer."

18. For what other jobs have you applied?

19. Do you have any military obligations to fulfill?

20. Give us an example of a project you finished under pressure.

21. May we write or call your last employer?

22. How many people have you supervised at work or through organizations of which you are a member?

23. How do you feel about the progress you have made salary-wise?

24. Would you be able to work all day Saturday and Sunday?

25. If you could start school (or work) over again what would you do differently?

26. What is your school attendance record?

27. Have you done the best school work of which you are capable?

ASSIGNMENT SHEET #5

28. Do you require attention? Does criticism disturb you?

    (NOTE: These questions are usually asked in a more subtle and indirect way.)

29. What motivates you?
30. Would you be willing to relocate?
31. What size city do you prefer?
32. Have you saved any money?
33. Define *cooperation*.
34. What job with our company would you choose if you were entirely free to do so?
35. How do you feel about working overtime?

REMEMBER: YOU NEVER GET A SECOND CHANCE TO MAKE A GOOD FIRST IMPRESSION!!! GETTING A JOB IS A JOB!!!

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #6--MAKE AN APPOINTMENT BY PHONE FOR AN OFFSET PRINTING JOB INTERVIEW

Making an appointment by phone does two things. First, it shows that you are interested in saving the employer's time. Second, it shows that you are thoughtful for asking what would be the best time for you to see the employer.

1. Steps in making an appointment by phone
   a. Plan what you are going to say before you call
   b. State your name and reason for calling

      Example: "Hello, this is Terry McKracken. I'm calling about your ad in last night's paper for an offset printer. May I have an appointment for an interview?"
   c. Ask when would be the best time for you to come for the interview
   d. Record the day, time, and place of the interview
   e. Thank the receptionist for the help
2. Things to remember when calling for an appointment
   a. Keep the receptionist on your side; the receptionist is there to help you

      (NOTE: The receptionist is sometimes asked to evaluate the applicant.)
   b. Do not ask over the phone how much the job pays

      (NOTE: Some questions about the nature of the job may be appropriate.)
   c. Be polite and courteous

      (NOTE: Remember that this call is the first contact you may have with the firm. Make that first impression a good one.)
   d. Ask if you should pick up an application blank or if they would like to send it to you before the interview

Now that you have read about the correct way to arrange for a job interview, role play a situation where you make an appointment by phone. Use the checklist on the next page to evaluate your performance.

ASSIGNMENT SHEET #6

	YES	NO
Was prepared before calling		
Did not have to stammer to find the right words		
Identified self immediately		
Stated reasons for calling immediately		
Asked the best time for an appointment with employer		
Was courteous and friendly		
Asked about picking up application blank or having application blank sent prior to interview		
Thanked the receptionist		
Made record of the interview date, hour, and place		

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #7--WRITE A FOLLOW-UP LETTER OR MAKE A FOLLOW-UP PHONE CALL AFTER AN INTERVIEW FOR AN OFFSET PRINTING JOB

It is sometimes helpful to return to a business and check again on possible job openings. This is often done about a week after the first interview. This short casual visit accomplishes two things. It helps the interviewer remember you, and it shows that you have a sincere interest in working for that company.

However, it is not always possible to have this type of informal atmosphere when applying for a job. In which case, it is always proper to send a follow-up letter or make a follow-up telephone call.

PART A

Write a follow-up letter thanking the employer for the interview. Use any form you wish or follow the format of the sample follow-up letter included in the assignment sheet.

1. Make sure your letter meets the following standards
    a. Typed or written perfectly
    b. Clean, neat, and attractively arranged on the page
    c. Free from spelling, punctuation, and grammatical errors
    d. Sent within a day or two after the interview
2. Include the following points in your follow-up letter
    a. Expression of appreciation for interviewer's time and interest
    b. Summary of your qualifications and interest in position
    c. Your name, address, and phone number (to make it easier for the employer to contact you)
3. Make this last bid for the job a prime example of your excellent work habits; make the letter clean, neat, and well-worded

PART B

Role play a follow-up telephone call using the guidelines below.

1. Make sure you include the following information
    a. Your name
    b. Date of your interview
    c. Position for which you were interviewed

ASSIGNMENT SHEET #7

2. Ask whether a decision has been made

Example:	Incorrect:	"Hello, Mr. Jones. This is Terry McKracken. You told me you would let me know about the job, but I haven't heard anything from you. Why haven't you called me?"
	Incorrect:	"This is Terry McKracken. Did I get the job?"
	Correct:	"Hello, Mr. Jones. This is Terry McKracken. I interviewed with you on June 30th for the position of an offset printer. Have you made a decision on my application yet?"

3. If someone has already been hired, thank the interviewer for considering you but express continued interest in working for the company

Example:	Incorrect:	"Oh well, that's my luck. Thanks anyway."
	Incorrect:	"I didn't want to work for your company anyway."
	Correct:	"I am sorry I was not hired. Thank you for at least considering my application. I am still interested in working for the company and would appreciate you keeping my application on file."

ASSIGNMENT SHEET #7

Example:

Mr. John Jones
Personnel Director
Jones Printing Co.
Box 19
Anywhere, U.S.A. 77704

Dear Mr. Jones:

Thank you for interviewing me for the offset printing job in your firm. I feel that working for Jones Printing would be enjoyable and that I could do the various printing operations that the job requires. I hope that I will have the opportunity to prove my worth.

The application form you gave me is enclosed.

I will be available for work May 15. You may call me at my home after 3:30 p.m. The number is 377-3303.

Sincerely yours,

Pat L. Smith

encl.

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #8--EVALUATE AN OFFSET PRINTING JOB OFFER

Instead of saying "yes" or "no" on the spot to a job offer, express your gratitude in a warm and friendly manner, and then ask if you may have time to consider the opportunity you have been offered. Few reputable employers will deny you a reasonable time to be certain before agreeing to take a job.

Avoid getting stuck with a job that's wrong for you by using the following checklist to evaluate the job offer.

THE JOB . . .

Do I clearly understand the nature of the work and is it what I want to do? Are my responsibilities reflected in the job title?

If this isn't my dream job, can it be a stepping stone as I acquire the skills and experience needed for advancement?

Is the background I'm building so narrow that I will have difficulty transferring it to another employer?

Will I be able to make any decisions affecting my work? Do I care?

Will I need more training and will the company pay for it?

Will overtime be necessary or available?

Will I be able to leave all thought of the job behind at day's end? If not, do I care?

Will I have to travel or relocate?

Is the job permanent or temporary?

If permanent, is there reasonable job security?

Does this job require union membership?

THE COMPANY . . .

Is the firm too large and heavy with rules for my personality?

Is the firm too small to offer room for advancement or impressive credentials for a future resume?

ASSIGNMENT SHEET #8

Does the firm have a healthy financial position and is it a growing organization?

Is there a high turnover of personnel, and if so, why?

Does the firm promote from within the ranks or turn to outsiders to fill supervisory jobs?

Have I met the person who would be my immediate supervisor?

Does the supervisor seem like the sort of person with whom I could get along?

Do co-workers appear to be my kind of people?

Is the company's location convenient?

What is the firm's reputation for fair treatment of employees?

Is a written personnel statement available that covers vacations, sick leave, cause for dismissal, and so forth?

FINANCIAL REWARDS . . .

Do the earnings meet my minimum needs? Are there automatic cost-of-living increases?

What is the method of payment--salary, hourly wage?

Are raises based on merit, length of service, formal exams?

What fringe benefits are given--health insurance, free parking, discount privileges, and others?

WHEN TO SAY NO . . .Should you always turn down an offer that doesn't measure up?

That depends on several questions. How desperately do you need to earn money? How competitive is the field you hope to enter, and would it be best to get your foot in the door any way you can? How valuable is the experience you'll gain? There are times when it is wise to accept a job which is not perfect in your eyes.

On the other hand, it could be best to refuse the offer.

Adapted from "If Things Don't Shape Up, I May Not Take the Job," Career World, February, 1977.

APPLYING FOR A JOB
UNIT VI

ASSIGNMENT SHEET #9--COMPARE JOB OPPORTUNITIES

When you are offered a job or are changing jobs there are many factors to weigh before taking the position. Some of these include:

1. What is your take-home pay?
2. What are the benefits which accompany the job?
3. How much will it cost to actually be at work each day?
4. Would the job be satisfying to you?
5. How would the job meet your needs and aspirations?

WHAT'S MY TAKE HOME PAY?

Salaries and wages are often quoted by employers as gross earnings. Gross earnings are used because tax deductions vary due to the number of dependents, the amount of earnings, and other information.

Optional benefits and deductions offered by an employer also differ. It is generally advisable to ask what programs are available for enrollment as these can affect the actual money you receive on pay day.

ASSIGNMENT SHEET #9

WHAT OTHER BENEFITS DO I GET FROM THIS JOB?

Some benefits associated with working are not always visible. Often some of these overlooked benefits are paid for in part by your employer. At the time of the interview or when considering a position ask about:

Employer's contributions for your protection which may include:

1. Health insurance
2. Unemployment compensation
3. Clothing and safety garments
4. Medical facilities and health tests
5. Pensions
6. Travel insurance (covering mishaps when traveling on business)
7. Educational programs or reimbursement for courses related to job
8. Sick leave with pay
9. Paid vacations and holidays

WHAT WILL IT COST TO WORK AT THIS JOB?

Frequently, we often overlook the costs which are associated with being employed. It may be of value to calculate estimated weekly expenses before you make a decision about a job.

Estimate weekly expenses for:

Transportation (parking, bus fares) $________

Lunches (or cost of food eaten away from home, including soft drinks and coffee) $________

Clothing (including cleaning) $________

Child care for working parent $________

Gifts for other employees $________

Special uniforms, materials, or equipment for job $________

Other $________

TOTAL $________

ASSIGNMENT SHEET #9

WHAT IS IMPORTANT TO ME IN A JOB?

Take-home pay and benefits may be only part of what you want from a job. Think through other things you consider important in a job.

What are some of the most rewarding things you've felt about any job you've ever had?

1. ______________________________
2. ______________________________
3. ______________________________

How might you rate these in order of what's important to you?

_____ Job security (little chance you'll be released from the job)
_____ Opportunity for advancement
_____ Recognition for your work
_____ Good wages
_____ Opportunity to learn and use your ideas
_____ Flexible working hours
_____ Long vacations
_____ Pleasant working conditions
_____ Interesting work
_____ Friendly co-workers
_____ Travel
_____ Other, such as ______________________________

ARE YOU READY TO DECIDE????

Take all the information you have gathered and summarize it below and on the next page to reach a decision about whether you want the job or not.

1. Would the job be satisfying to you? Why/why not?

____
____
____

ASSIGNMENT SHEET #9

2. What are the benefits which accompany the job?

3. How much will it cost to actually be at work each day?

4. How would the job meet your needs and aspirations?

5. I estimate my take-home pay to be $____________.

6. I estimate my expenses related to working to be $____________.

7. I would most enjoy the following about this job: ____________

8. I estimate my job benefits to be worth $____________.

G I -151-A

APPLYING FOR A JOB
UNIT VI

NAME ______________________________

TEST

1. Match the terms on the right with the correct definitions.

_____ a. A brief typed summary of one's qualifications and experiences that is used in applying for a job

_____ b. The extras provided by an employer such as paid vacations, sick leave, and insurance protection

_____ c. Recognition received for outstanding achievement

_____ d. The experience, education, and physical characteristics which suit a person to a job

_____ e. Any vocational courses taken and skills one has learned in school or through work experience

_____ f. The clubs, organizations, and social or church groups in which one participates

1. Awards
2. Extra-curricular activities
3. Fringe benefits
4. Qualifications
5. Resume
6. Vocational preparation

2. Select means of locating job openings by placing an "X" in the appropriate blanks.

_____ a. Classified ads

_____ b. School officials

_____ c. Employment offices

_____ d. Local labor union business office

3. List three methods of applying for a job.

a.

b.

c.

4. Select items of information that may be asked for on an application by placing an "X" in the appropriate blanks.

_____a. Grandfather's age

_____b. Name and address

_____c. Phone number

_____d. Shoe size

_____e. Age, height, weight

_____f. Education

_____g. Number of brothers and sisters

_____h. Experience

_____i. Next of kin

_____j. Make and model of car

_____k. Previous employers

_____l. Reason for leaving last job

_____m. Are you left or right handed

_____n. Type of job for which one is applying

_____o. References

5. Distinguish between employer and employee expectations by placing an "X" in front of the employer's expectations.

_____a. Cooperation

_____b. Honesty

_____c. Initiative

_____d. Salary

_____e. Safe working conditions

_____f. Training

_____g. Willingness to learn

_____h. Willingness to follow directions

_____i. Introduction to co-workers

_____j. Dependability

_____k. Enthusiasm

_____l. Acceptance of criticism

_____m. Loyalty and respect

_____n. Full day's work for full day's pay

_____o. Notification of termination

6. Select personal attributes or attitudes that an employer looks for during a personal interview by placing an "X" in the appropriate blanks.

_____a. Alertness, quickness of mind

_____b. Long wavy hair

_____c. Dedication and dependability

_____d. Enthusiasm and interest

_____e. New car

_____f. Honesty and integrity

_____g. Desire to work

_____h. Beard

_____i. Flashy clothes

_____j. Desire to help others

_____k. Desire to improve one's self

7. Select examples of proper conduct during a job interview by placing in "X" in the appropriate blanks.

_____a. Arrive five minutes late; gives the impression that you are busy

_____b. Sit and stand erect; do not lean against the wall, a chair, or the desk

_____c. Call interviewer by his or her first name

_____d. Answer questions completely

_____e. Put a hat or coat on the interviewer's desk _____f. Greet interviewer with a warm smile

_____g. Sit down immediately upon entering the room

_____h. Shake interviewer's hand firmly

_____i. Be polite and courteous

_____j. Use all of the cute slang expressions

_____k. Be sincere and enthusiastic

_____l. Thank the interviewer

_____m. Chain smoke

_____n. Speak well or not at all of former employers and associates

_____o. Flatter the interviewer

_____p. Leave promptly at completion of interview

8. Prepare a resume.
9. Write a letter of application for an offset printing job.
10. Complete an application form for a job as an offset printer.
11. Prepare a personal portfolio.
12. Practice interview questions.
13. Make an appointment by phone for an offset printing job interview.
14. Write a follow-up letter or make a follow-up phone call after an interview for an offset printing job.
15. Evaluate an offset printing job offer.
16. Compare job opportunities.

(NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

APPLYING FOR A JOB
UNIT VI

ANSWERS TO TEST

1. a. 5 d. 4
   b. 3 e. 6
   c. 1 f. 2

2. a, b, c, d

3. a. Letter
   b. Telephone
   c. In person

4. b, c, e, f, h, i, k, l, n, o

5. a, b, c, g, h, j, k, l, m, n, o

6. a, c, d, f, g, j, k

7. b, d, f, h, i, k, l, n, p

8. Evaluated to the satisfaction of the instructor

9. Evaluated to the satisfaction of the instructor

10. Evaluated to the satisfaction of the instructor

11. Evaluated to the satisfaction of the instructor

12. Evaluated to the satisfaction of the instructor

13. Evaluated to the satisfaction of the instructor

14. Evaluated to the satisfaction of the instructor

15. Evaluated to the satisfaction of the instructor

16. Evaluated to the satisfaction of the instructor

PRINCIPLES OF COPY PLANNING AND PREPARATION
UNIT I

UNIT OBJECTIVE

After completion of this unit, the student should be able to select factors that affect copy planning and preparation, and match the components of a layout with the correct descriptions. The student should also be able to identify illustrations as line or halftone. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheet and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with the principles of copy planning and preparation with the correct definitions.
2. Select factors that affect copy planning and preparation.
3. Match the components of a layout with the correct descriptions.
4. Arrange in order layout and paste-up steps.
5. Select true statements concerning postal regulations.
6. Identify illustrations as line or halftone.

PRINCIPLES OF COPY PLANNING AND PREPARATION
UNIT I

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Make transparencies.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. Bring to class samples of thumbnail sketches, rough layouts, dummies, and comprehensive layouts.

VII. Make a bulletin board to display special effect screens.

VIII. Use a micrometer to measure sizes of pieces of copy to determine whether they are mailable or not.

IX. Instructor may find it helpful to obtain a complete set of postal regulations from post office and display on bulletin board.

X. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

- A. Objective sheet
- B. Information sheet
- C. Transparency masters
    - 1. TM 1--Line Illustrations
    - 2. TM 2--Halftone Copy
- D. Assignment Sheet #1--Identify Illustrations as Line or Halftone
- E. Test
- F. Answers to test

II. References:

A. Hawkinson, Bruce. *Graphic Arts-A Curriculum Manual.* Albuquerque, NM 87503: Vo-Tech Division of the New Mexico State Department of Education, 1975.

B. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publ. Co., 1980.

C. Prust, Z.A. *Photo-Offset Lithography*. South Holland, IL 60473: Goodheart-Willcox Co., Inc., 1977.

D. Carpenter Paper Co. Reprint from *Memo to Mailers,* June, 1978.

E. United State Postal Service. *Mailing Permits.* Washington, D.C.: U.S. Government Printing Office, July, 1977.

PRINCIPLES OF COPY PLANNING AND PREPARATION
UNIT I

INFORMATION SHEET

I. Terms and definitions:

   A. Balance--Pleasing arrangement of elements on a page

   B. Proportion--Pleasing arrangement of margins, page sizes, and shapes

   C. Emphasis--Arrangement of elements on a page to attract most attention to the most important element

   D. Thumbnail sketch--One of several small, crude drawings which shows a possible way to combine various elements of a printed product

   E. Rough layout--An actual size, somewhat more refined version of the thumbnail sketch

   F. Dummy--A pattern arrangement of the material to be printed

   G. Comprehensive layout--Accurate representation of final printed product

   H. Element--Each individual portion of the printed message

   Examples: A heading, an illustration, a paragraph, a footnote, a decoration, a photograph

   I. Paste-up--A sheet on which all the reproduced elements of the final product are pasted, in proper size and location, just as the comprehensive layout indicates

   J. Line illustration--Drawing that is black and white, without shades of gray

   K. Halftone illustration--A kind of copy (usually pictures) which has gradation, or variation, of tone; that is, it contains not only black and white tones, but appears to have shades of gray between them

   L. Layout--The plan of any piece to be printed

   M. Cropping--Eliminating part of the copy

   N. Scaling--Amount of enlargement or reduction of copy

II. Factors that affect copy planning and preparation

   A. Equipment and plant capabilities

   B. Paper size and color

   C. Ink color

INFORMATION SHEET

- D. Type sizes and styles
- E. Photographs and illustrations
- F. Design factors
  - 1. Balance
  - 2. Proportion
  - 3. Emphasis

  (NOTE: Design factors are covered in more detail in Unit III of this section.)

III. Components of a layout

- A. Thumbnail sketch
  - 1. Small, quick drawings
  - 2. Explores and develops ideas
  - 3. Shows different ways to lay out a design
- B. Rough layout
  - 1. Actual size
  - 2. Aids in visualizing spacing, balance, and emphasis
  - 3. Aids in selecting type styles and other elements
- C. Comprehensive layout
  - 1. Actual size
  - 2. Looks as much like final printed copy as possible
  - 3. Specifications for printing job in margins

IV. Layout and paste-up steps

- A. Layout
  - 1. Cropping of elements
  - 2. Scaling of elements

INFORMATION SHEET

B. Paste-up

1. Comprehensive layout used as guide

2. Paste each element in proper position

(NOTE: Cropping, scaling of copy, and paste-up will be covered in Unit IV of this section.)

V. Postal regulations

A. Size

1. Minimum--3 1/2" high x 5" long

2. Maximum--6 1/8" high x 11 1/2" long

3. Length may not be more than 2.5 times or less than 1.3 times the height

4. Pieces under minimum or over maximum mailable with surcharge rate

B. Weight and thickness

1. Minimum--.007 inches thick with minimum size

2. Maximum--.25 inches thick with maximum size

C. Business reply cards

1. Permit needed from U.S. Postal Service

2. U.S. Postal Service specifications and negatives must be used

D. Third class bulk mail

1. Annual fee charged

2. Special rates for certain nonprofit organizations

Examples: Religious organizations, educational organizations

3. Prepaid postage required

4. Minimum--200 pieces or 50 pounds of material of identical size and weight

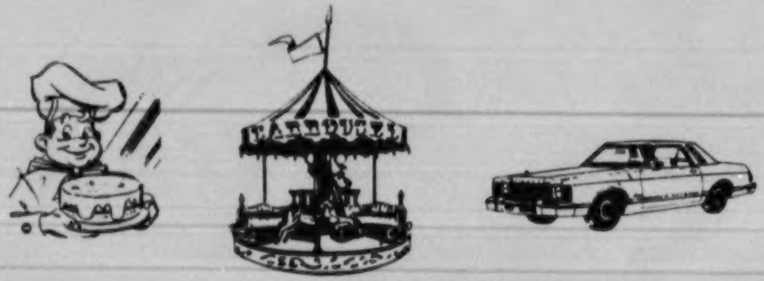
INFORMATION SHEET

VI. Line and halftone illustrations

A. Line--Any solid copy to be printed, without gradation of tones Figure 1)

FIGURE 1

Line Illustrations



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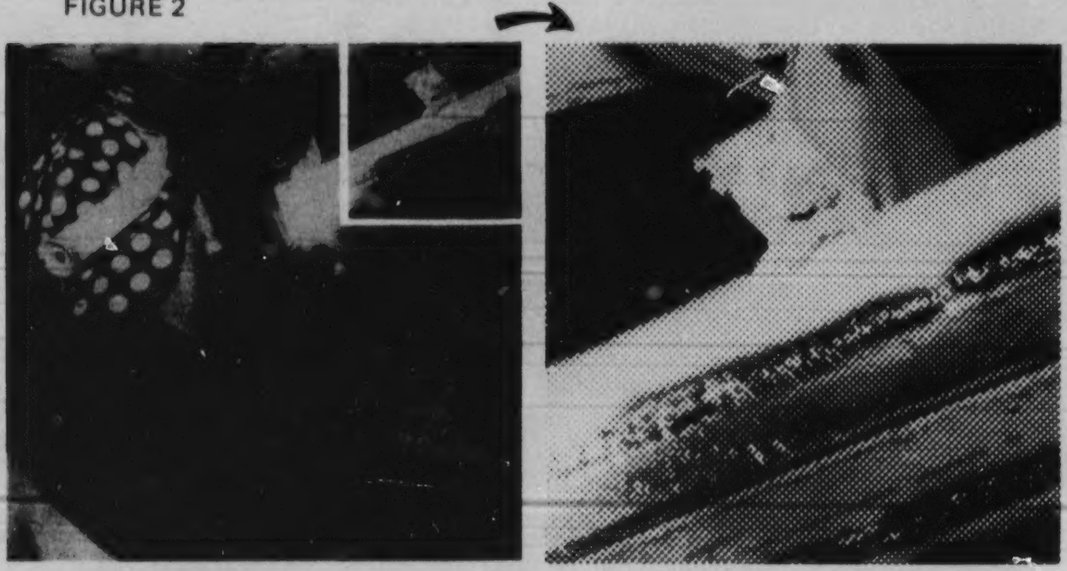
B. Halftone

1. Any copy which has gradation of tones

2. Usually a photograph broken up into a variety of dot sizes (Figure 2)

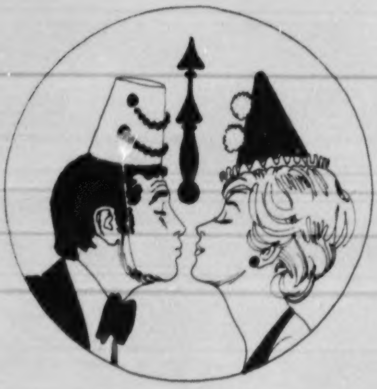
FIGURE 2

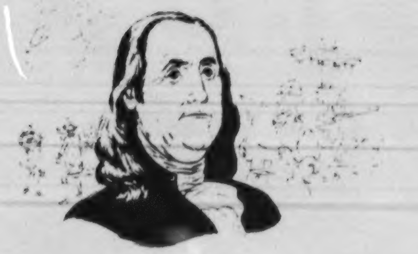


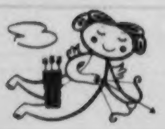
a) Halftone

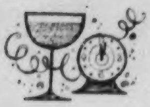
b) Enlarged Section of Screened (Halftone) Negative for Figure 2

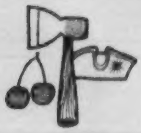
Line Illustrations

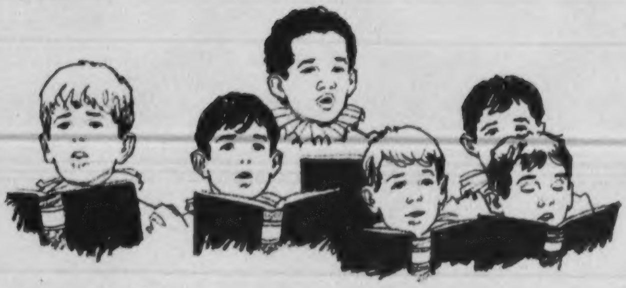












Halftone Copy

PRINCIPLES OF COPY PLANNING AND PREPARATION
UNIT I

ASSIGNMENT SHEET #1--IDENTIFY ILLUSTRATIONS AS LINE OR HALFTONE

1. Bring to class three examples from newspapers and/or magazines of line illustrations. Be prepared to tell why you chose them.
2. Bring to class three examples from newspapers and/or magazines of halftone illustrations. Be prepared to tell why you chose them.
3. Measure the illustrations and see if they meet postal regulations.

PRINCIPLES OF COPY PLANNING AND PREPARATION
UNIT I

NAME ______________________________

TEST

1. Match the terms on the right with the correct definitions.

______a. A sheet on which all the reproduced elements of the final product are pasted, in proper size and location, just as the comprehensive layout indicates

______b. A kind of copy which has gradation, or variation of tone; that is, it contains not only black and white tones, but appears to have shades of gray between them

______c. An actual size, somewhat more refined version of the thumbnail sketch

______d. Pleasing arrangement of elements on a page

______e. Each individual portion of the printed message

______f. Arrangement of elements on a page to attract most attention to the most important element

______g. Accurate representation of final printed product

______h. Pleasing arrangement of margins, page sizes, and shapes

______ One of several small, crude drawings which shows a possible way to combine various elements of a printed product

______j. Drawing that is black and white, without shades of gray

______k. The plan of any piece to be printed

______l. Eliminating part of the copy

______m. Amount of enlargement or reduction of copy

______n. A pattern arrangement of the material to be printed

1. Balance
2. Proportion
3. Layout
4. Rough layout
5. Thumbnail sketch
6. Comprehensive layout
7. Scaling
8. Paste-up
9. Line illustration
10. Halftone illustration
11. Emphasis
12. Cropping
13. Element
14. Dummy

2. Select factors that affect copy planning and preparation by placing an "X" in the appropriate blanks.

______a. Paper size and color

______b. Ink color

______c. Plant capabilities

______d. Artistic value of rough layout

______e. Proportion of design

3. Match the components of a layout on the right with the correct descriptions.

(NOTE: Answers may be used more than once.)

______a. Shows different ways to lay out a design

______b. Aids in visualizing spacing, balance, and emphasis

______c. Small, quick drawings

______d. Explores and develops ideas

______e. Specifications for printing job in margins

______f. Aids in selecting type styles and other elements

______g. Looks as much like final printed copy as possible

1. Thumbnail sketch
2. Comprehensive layout
3. Rough layout

4. Arrange in order layout and paste-up steps.

______a. Paste each element in proper position

______b. Cropping of elements

______c. Scaling of elements

5. Select true statements concerning postal regulations by placing an "X" in the appropriate blanks.

______a. Cards and letters must be a minimum of 3 1/2" high x 5" long

______b. Pieces under minimum size are not mailable

______c. Length may not be more than 2.5 times or less than 1.3 times the height

______d. The minimum on third class bulk mail is 200 pieces or 50 pounds of material of identical size and weight _____e. U.S. Postal Service specifications and negatives must be used for business reply cards

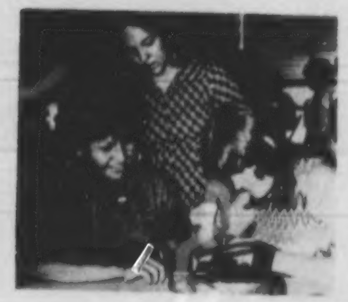
_____f. A flat rate is charged to all customers mailing third class bulk mail

6. Identify the illustrations below as line or halftone.

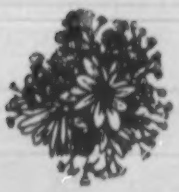
a. ________________ b. ________________

c. ________________ d. ________________

a.



b.



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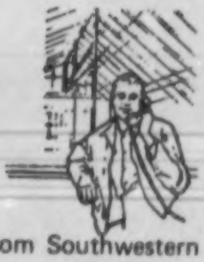
c.



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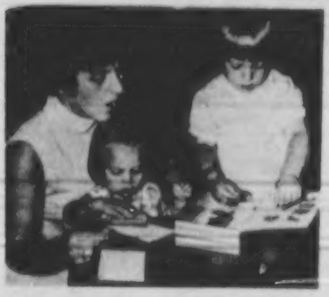
d.



PRINCIPLES OF COPY PLANNING
AND PREPARATION
UNIT I

ANSWERS TO TEST

1. a. 8
   b. 10
   c. 4
   d. 1
   e. 13
   f. 11
   g. 6
   h. 2
   i. 5
   j. 9
   k. 3
   l. 12
   m. 7
   n. 14

2. a, b, c, e

3. a. 1
   b. 3
   c. 1
   d. 1
   e. 2
   f. 3
   g. 2

4. a. 3
   b. 1
   c. 2

5. a, c, d, e

6. a. halftone
   b. line
   c. line
   d. halftone

TYPOGRAPHY
UNIT II

UNIT OBJECTIVE

After completion of this unit, the student should be able to distinguish between hot and cold type, and identify parts of a type character and type styles. The student should also be able to measure type, calculate copyfitting, and mark-up copy. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with typography with the correct definitions.
2. Distinguish between hot and cold type characteristics.
3. Identify parts of a type character.
4. Identify type styles.
5. Match terms related to type fonts, type series, and type familes with the correct characteristics.
6. Select true statements concerning units of measurement.
7. Select true statements concerning measuring type.
8. Select true statements concerning copyfitting.
9. Select true statements concerning marking up copy.
10. Measure type.
11. Calculate copyfitting.
12. Mark-up copy.

TYPOGRAPHY
UNIT II

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Make transparencies.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. Samples of hot metal or hand set type could be shown at this time and then compared to cold type or fonts.

VII. Show samples of different styles of types.

VIII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

  A. Objective sheet

  B. Information sheet

  C. Transparency masters

    1. TM 1--Parts of a Type Character
    2. TM 2--Styles of Type
    3. TM 3--Units of Measurement
    4. TM 4--Measuring Body Size and Leading

  D. Assignment sheets

    1. Assignment Sheet #1--Distinguish Between Hot and Cold Type Characteristics
    2. Assignment Sheet #2--Identify Type Styles
    3. Assignment Sheet #3--Measure Type
    4. Assignment Sheet #4--Calculate Copyfitting
    5. Assignment Sheet #5--Mark-up Copy

E. Answers to assignment sheets

F. Test

G. Answers to test

II. References:

A. Cogoli, John E. *Photo Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1973.

B. Karch, Randolph R. *Graphic Arts Procedures*, 4th Ed. Peoria, IL 60637: American Technical Society, 1970.

C. Orr, Kenneth. *Printing Layout and Design.* Albany, NY: Delmar Publishing Inc., 1968.

D. Hawkinson, Bruce. *Graphic Arts-A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech Division of New Mexico State Department of Education, 1975.

TYPOGRAPHY
UNIT II

INFORMATION SHEET

I. Terms and definitions

- A. Type--One or more printed characters
- B. Hot type--A three-dimensional mold or pattern from which characters can be printed directly onto the paper
- C. Cold type--The two-dimensional image from which characters can be printed, such as "strike-on," clip art, illustrations, and photo-typesetting
- D. Strike-on type--Any type that has been placed on copy by the means of a key or font containing the characters striking paper
- E. Clip art--Material, such as illustrations, letters, and designs, clipped from available sources and utilized as camera copy
- F. Relief type--Characterized by surface inequalities, such as the inked, raised letters in letterpress printing
- G. Copyfitting--The process of finding out how much space is needed to print the words in a job
- H. Measure--The width of a line of type
- I. Leading--The space between lines of type

  (NOTE: This term is pronounced "ledding.")
- J. Justified--All lines of typeset copy are even on both sides (flush left and flush right)
- K. Ascender--In type, the part of the lower case letter that rises above the waist line
- L. Descender--In type, the part of the lower case letter that goes below the base line
- M. Body height--The distance from the bottom of descender to the top of a capital letter
- N. Upper case--Capital letters only
- O. Lower case--Small, non-capital letters only
- P. Serifs--The small cross strokes that project out from the main letter strokes

INFORMATION SHEET

Q. Photo-typesetting--Typesetting that is produced by exposure to light, images of letters or numerals, onto light-sensitive paper or film

R. Quad-left--All lines of typeset copy are flush left, or, lined up on left side

S. Quad-right--All lines of typeset copy are flush right, or, lined up on right side

T. Heads (display) type--Type 14 points or larger

U. Body (text) type--Type 12 points and smaller

V. Mark-up--Instructions to the compositor regarding size, style of type, and margins of the layout

(NOTE: Mark-up is sometimes referred to as coding.)

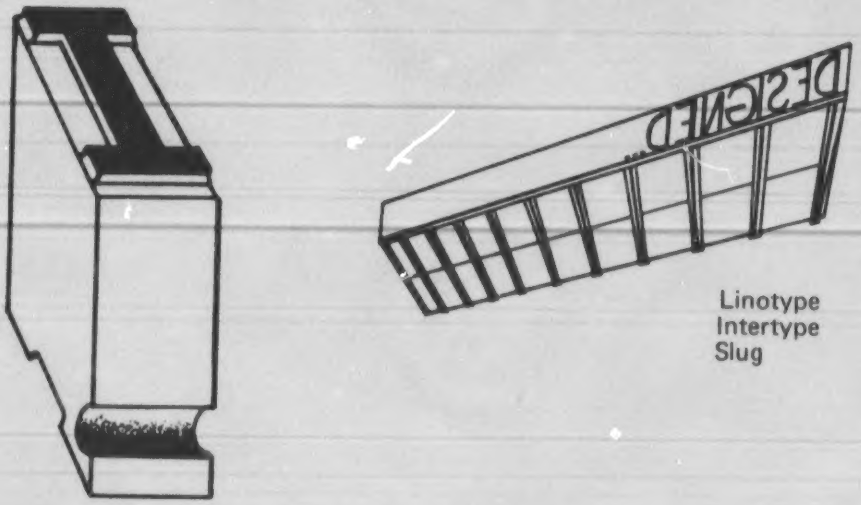
W. Line gauge--A ruler that is calibrated in points, picas, and inches

II. Hot and cold type characteristics

A. Hot type (Figure 1)

1. Mold or pattern from which characters can be printed
2. Three-dimensional type
3. Printed directly onto surface of paper
4. Also known as "relief" composition

FIGURE 1



Example of "hot" metal type character

Linotype Intertype Slug

INFORMATION SHEET

B. Cold type

1. Any copy that can be photographed
2. Usually printed indirectly (set off from plate)
3. Two-dimensional image

(NOTE: This page of type is an example of "cold" type composition.)

III. Parts of a type character (Transparency 1)

A. Different parts of a type character have certain names

B. Most important parts are ascender, descender, and serif

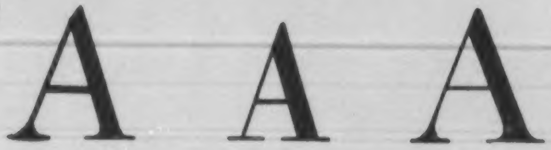
1. Ascenders and descenders help determine body size
2. Serifs and descenders help identify type faces and styles

IV. Type styles (Transparency 2)

A. Roman (Figure 2)

1. Oldstyle, modern, and transitional
2. All have serifs
3. All have heavy and light elements

FIGURE 2



Old Style Roman Modern Roman Transitional Roman

B. Gothic (Figure 3)

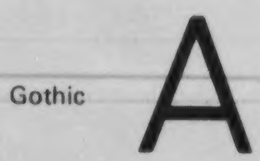
1. Also known as sans-serif

(NOTE: The French word *sans* means *without*; thus the term sans-serif means without serifs.)

INFORMATION SHEET

2. Hairline and stem of nearly uniform strokes
3. Simplest of all type face designs

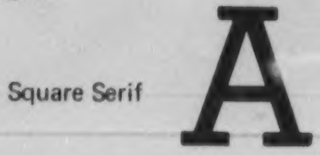
FIGURE 3



C. Square Serif (Figure 4)

1. Blocked or squared serifs
2. Uniform strokes
3. Sometimes called "block" style

FIGURE 4



D. Text (Figure 5)

1. Heavy, bold appearance
2. Designed from type used hundreds of years ago
3. Also called Gothic text, Old English and Black-letter

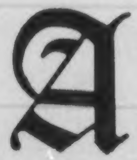
INFORMATION SHEET

4. Never use all capital letters, as it is very difficult to read

(NOTE: Text as a type style should not be confused with the text or body type of a printed piece. When used to describe a typeface, the word TEXT is always capitalized.)

FIGURE 5

TEXT

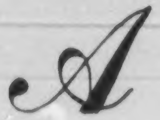


E. Script (Figure 6)

1. Handwriting or hand-lettering effect
2. Popular for announcements and invitations
3. Sometimes known as "Cursive"
4. Never use all capital letters, as it is very difficult to read

FIGURE 6

Script



F. Novelty (Figure 7)

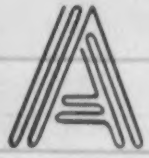
1. Unusual designs commanding attention
2. Used for display lines only, as it is not legible in small sizes

INFORMATION SHEET

3. Also called Decorative or Special

FIGURE 7

Novelty



(NOTE: The italic type, although not a type style, is used and considered much like a style. It may be Roman, Sans-serif, or Square Serif. See Figure 8.)

FIGURE 8

Italic ***JKLMNOpqrstu***

V. Characteristics of type fonts, type series, and type families

A. Type font

1. One size of characters in a type face
2. Usually includes upper case, lower case, numerals, and symbols
3. Some fonts include small capitals or italics

B. Type series

1. All sizes of one typeface
2. Common sizes are 6, 8, 10, 12, 14, 18, 24, 30, 36, 42, 48, 60, 72, 84 points

C. Type families (Figure 9)

1. All series of one general type design

INFORMATION SHEET

2. May be bold, light, condensed, expanded, extra bold, extra light, italic or combinations of these

FIGURE 9

Each family is made up of many series

Futura Lt	ABCDEFGHIJKLMNOPQRSTUV
Futura Lt Ital	*ABCDEFGHIJKLMNOPQRST*
Futura Bld	**ABCDEFGHIJKLMNOP**
Futura Bld Cond	**ABCDEFGHJKLMNOPQRSTUVW**
Futura Bld Ital	***ABCDEFGHJKLMN***
Futura Exbld Cond	**ABCDEFGHIJKLMNOP**
Futura Exbld Cond Ital	***ABCDEFGHJKLMN***
Futura Exbld Ital	***ABCDEFGHIJ***

VI. Units of measurement (Transparency 3)

A. Point

1. Smallest unit of measurement
2. Used to measure type body size and leading
3. Approximately 1/72 of a inch

B. Pica

1. Equal to exactly 12 points
2. Used to measure line length
3. Six picas equal approximately one inch

C. Word spaces

1. Em--The square of the typebody of any size

   Example: An em in 12 point type measures 12 x 12 points; in 10 point type it measures 10 x 10 points

2. En--One-half the width of the em
3. Quad--Blank type used to space out at the ends of lines in type composition and to indent
4. 3-Em space--1/3 of an em, normal spacing between words
5. Thin space--Usually the 4 and 5-em space

INFORMATION SHEET

VII. Measuring type (Transparency 4)

A. Body size (Figure 10)

1. Refers to height of the particular type
2. Measured in points, with line gauge
3. Measured from bottom of "descender" to top of "ascender"
4. Type 12 points or smaller is known as "body" or "text" type, while type 14 points or larger is known as "display" type

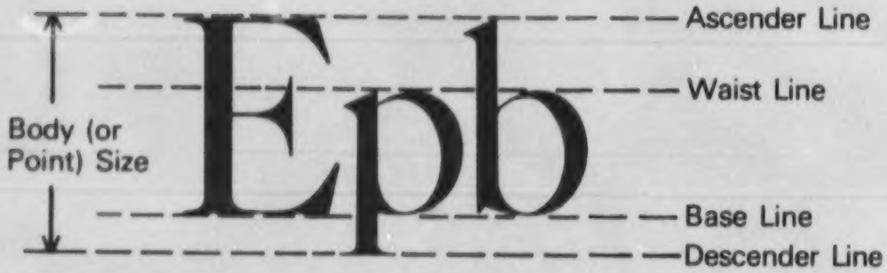

Ascender Line
Waist Line
Body (or Point) Size
Epb
Base Line
Descender Line

FIGURE 10 Body Size Measuring

B. Line length (Figure 11)

1. Also known as "measure"
2. Line length measured in picas, with line gauge
3. Line length should be appropriate to type size

INFORMATION SHEET

4. Line should be approximately 1 1/2 to 2 1/2 times the length of the lower case alphabet of type size used

FIGURE 11

Line Length or Measure.

abcdefghijklmnopqrstuvwxyz — — — — →| 7 pt.
abcdefghijklmnopqrstuvwxyz — — — — — →| 9 pt.
abcdefghijklmnopqrstuvwxyz — — — — — →| 10 pt.
abcdefghijklmnopqrstuvwxyz — — — — — — →| 11 pt.
abcdefghijklmnopqrstuvwxyz — — — — — — — →| 14 pt.

C. Leading

1. Measured from base line to base line
2. Increases legibility of copy
3. Measured in points, with line gauge
4. Leading of 1-2 points for 8 point type, 1-3 points for 10 point type, 2-4 points for 12 point type is common practice in the industry
5. "Set solid" is without leading, i.e., 12 point type set on 12 point line spacing

VIII. Copyfitting

A. Calculating total typewriter characters in job to be typeset

1. Typewriter character count method

   a. Elite typewriter type has 12 characters per inch, so multiply line length by 12, times number of lines

   b. Pica typewriter type has 10 characters per inch, so multiply line length by 10, times number of lines

   (NOTE: This is not the same as a pica measurement.)

   c. For a proportional typewriter, look for manufacturer's specifications, or use character count method in part B below

2. Vertical line method

   a. Draw vertical line down the typewritten copy at end of shortest full line of type

INFORMATION SHEET

b. Count the characters in that line, and multiply by number of lines

(NOTE: Count short line at end of paragraph as full line)

c. Add to the product the number of characters on the right side of line for total

(NOTE: Copy submitted to a printer should always be typed.)

B. Converting typewriter characters to typesetting

1. Determine type size and type characters per pica from the catalogue, i.e., 2.5 characters per pica
2. Determine line measure, i.e., 30 picas wide
3. Determine number of typeset characters in each line, i.e., 2.5 characters x 30 picas wide
4. Determine number of lines of typeset copy that will be required to set all of typewritten copy

C. Depth of copy

1. Determine if copy is to be set solid or leaded
2. Calculate leading plus type point size times number of lines for depth of typeset copy

EXAMPLE: **(Translate this copy space to type space)**

This passage is typewritten in pica typewriter type. That
means that 10 characters or spaces fall within one inch. Our
job is to measure this and calculate how much space it will
take if we set it in type. The type font we want to use is
11 point Press Roman. We want our measure (the width of
line) to be 34 picas, justified. The average number of charac-
ters of 11 point Press Roman that fit within one pica is
2.56. We are going to lead each line 2 points. That is all
the information needed to determine how much space this pas-
sage will occupy in type.

Step 1 Measure each line for use vertical rule method and determine number of characters in passage.

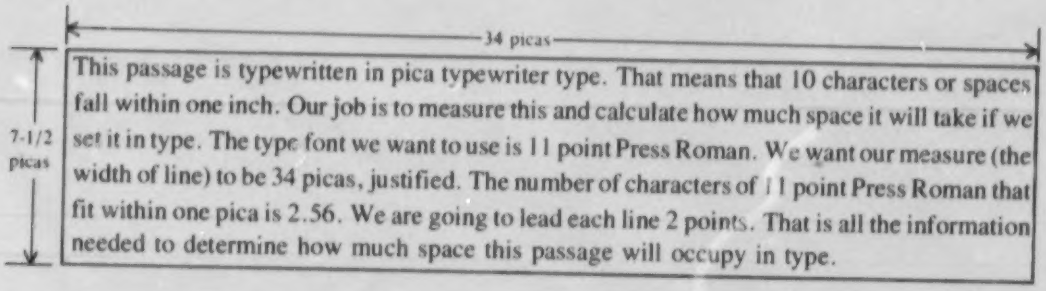
INFORMATION SHEET

Step 2 - Divide the total number of characters by 2.56 to determine total number of picas in printed passage.

Step 3 - Divide total number of picas by 34 (the number of picas in the line to be printed) to obtain the number of lines in the passage.

Step 4 - Multiply number of lines by 13 points (11 points plus 2 points leading to obtain depth of passage in points: then convert to picas by dividing by 12.

Your calculations will show that there are 544 characters in the passage, that will occupy 212.54 picas in 11 point Press Roman, or a little more than six 34-pica measure lines each 13 points deep, or a total of 91 points or almost exactly 7-1/2 picas deep. So the following block should contain the passage, 34 picas wide and 7-1/2 picas deep.



This passage is typewritten in pica typewriter type. That means that 10 characters or spaces fall within one inch. Our job is to measure this and calculate how much space it will take if we set it in type. The type font we want to use is 11 point Press Roman. We want our measure (the width of line) to be 34 picas, justified. The number of characters of 11 point Press Roman that fit within one pica is 2.56. We are going to lead each line 2 points. That is all the information needed to determine how much space this passage will occupy in type.

IX. Marking up copy

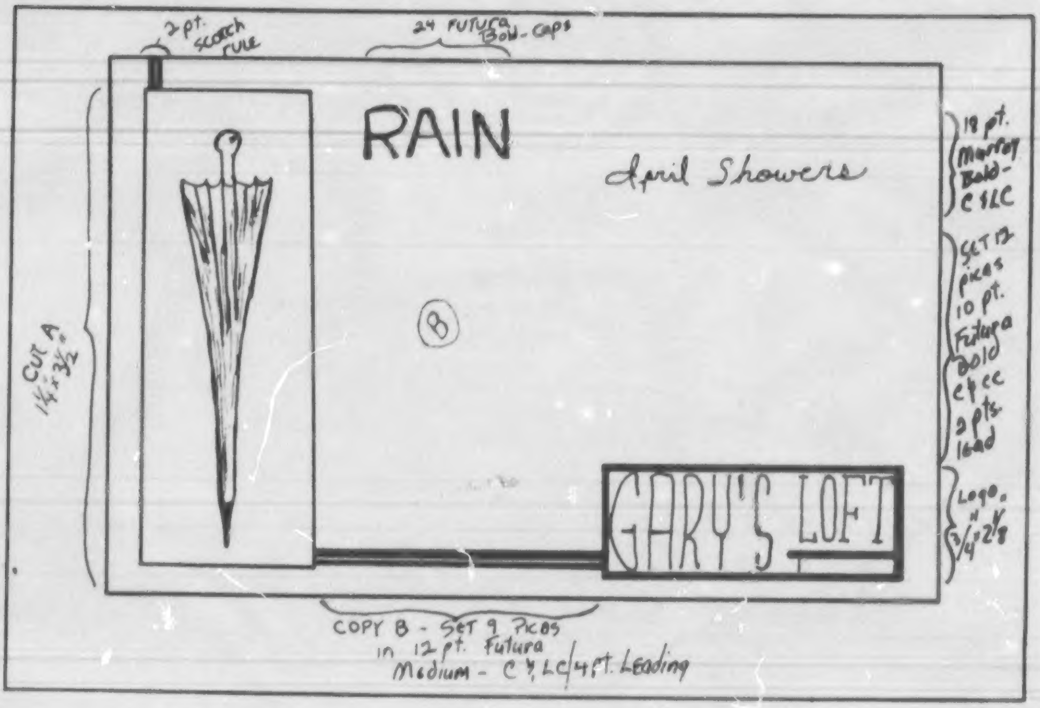
- A. Prepare copy
    1. Mark instructions in margins, not on copy
    2. Use letters or numbers to key layout elements to copy
    3. Mark type style and size on text and display copy
    4. Mark line measures and leading
    5. Mark whether to set flush left, right or centered
    6. Specify indentation and paragraph spacing

INFORMATION SHEET

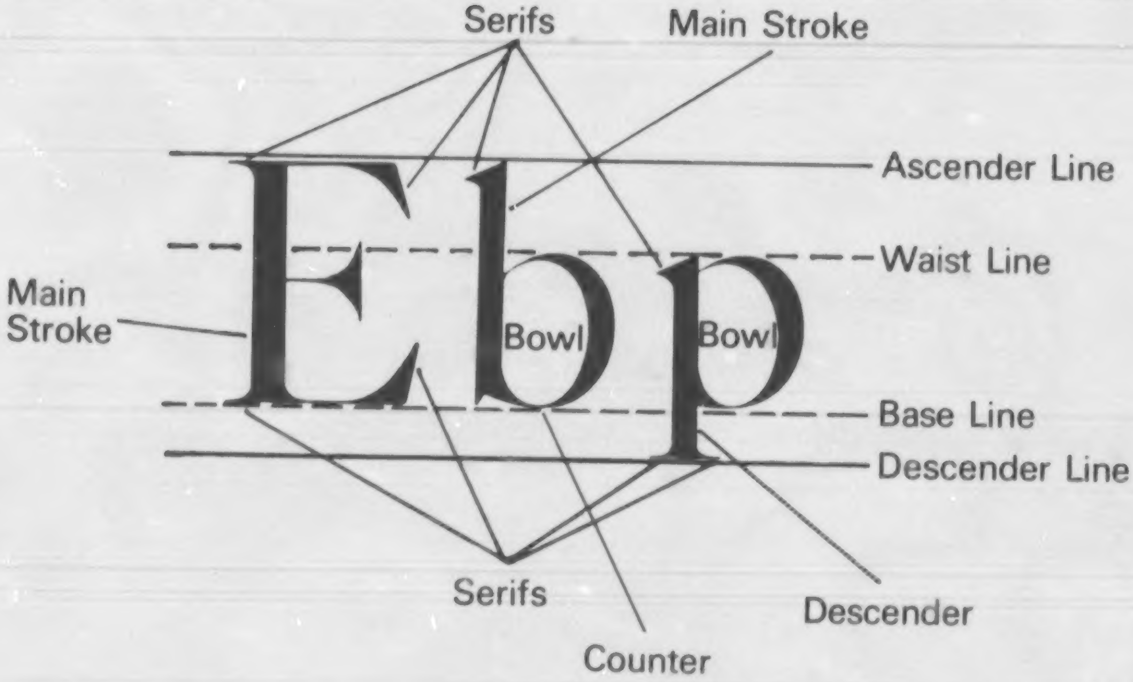
B. Read and correct copy with proper proofreading marks

(NOTE: Proofreading is covered in Unit III of Section C.)

Example:


2 pt. scotch rule
24 Futura Bold-caps
RAIN
April Showers
18 pt. Murray Bold- C & LC
Set 12 picas 10 pt. Futura Bold C & LC 2 pts. lead
Logo 3/4" x 2 1/8"
Cut A 1 1/4" x 3 1/2"
8
GARY'S LOFT
COPY B - SET 9 PICAS in 12 pt. Futura Medium - C & LC/4 pt. Leading

Parts of a Type Character


Serifs
Main Stroke
Ascender Line
Waist Line
Main Stroke
Ebp
Bowl
Bowl
Base Line
Descender Line
Serifs
Descender
Counter

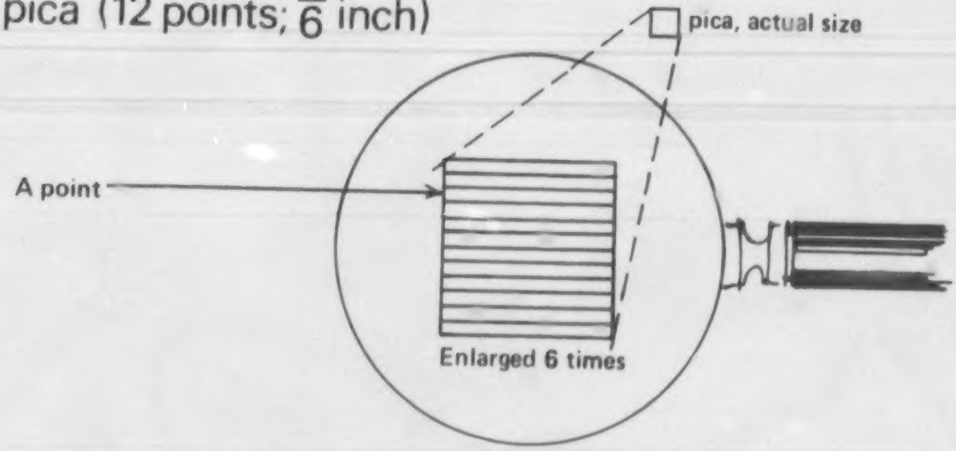
Styles of Type

Bodoni Book ABCDEFGHIJKLMNOPQRSTU 12	Roman
Caledonia ABCDEFGHIJKLMN 12	
Cooper Old Style ABCDEFGHIJKLM 12	
Clarendon Bd Ex 12	Square Serif
Karnak Black Condensed ABCDEFGHIJKL 12	
Stymie Medium ABCDEFGHIJKLM 12	
Bank Script ABCDEFG 12	Cursive and Script
Stradivarius ABCDEFGHI 12	
Liberty ABCDEFGHIJ 12	
Helvetica Bld Ext ABCDEFGH 12	Gothic or Sans Serif
Impact ABCDEFGHIJJKLMNOPQR 12	
Standard Extra Lt Ext ABCDEF 12	
Old English ABCDEFGHIJKLMNO 12	Text Letters
American Text ABCDEFGHIJKLMNOPQR 12	
Wedding Text ABCDEFGHIJKLMNOPQ 12	
Charleston ABCDEFGHIJKLMN 12	Novelty and Others
FONTANESI ABC 12	
GRAPHIQUE ABCDEFGHIJKLMNOPQRSTUV 12	
THUND AB 12	
STENCIL ABCDEFG 12	

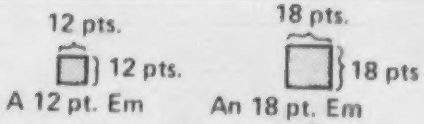
Units of Measurement

The point (approx. $\frac{1}{72}$ inch)

The pica (12 points; $\frac{1}{6}$ inch)

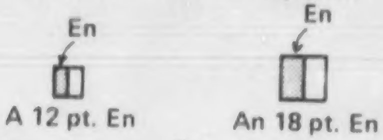

pica, actual size
A point
Enlarged 6 times

The Em


12 pts.
12 pts.
A 12 pt. Em
18 pts.
18 pts
An 18 pt. Em

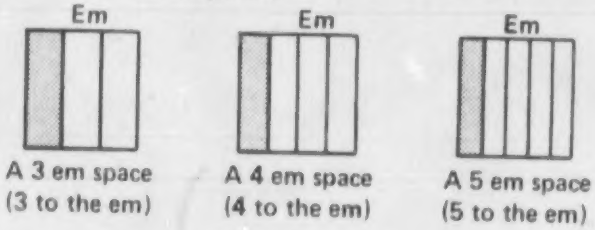
(The Size of the Font Squared)

The En

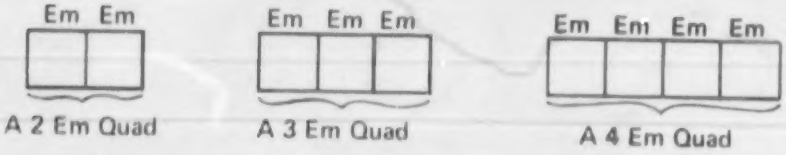

En
A 12 pt. En
En
An 18 pt. En

(1/2 an Em (Horizontally))

Em Spaces


Em
A 3 em space
(3 to the em)
Em
A 4 em space
(4 to the em)
Em
A 5 em space
(5 to the em)

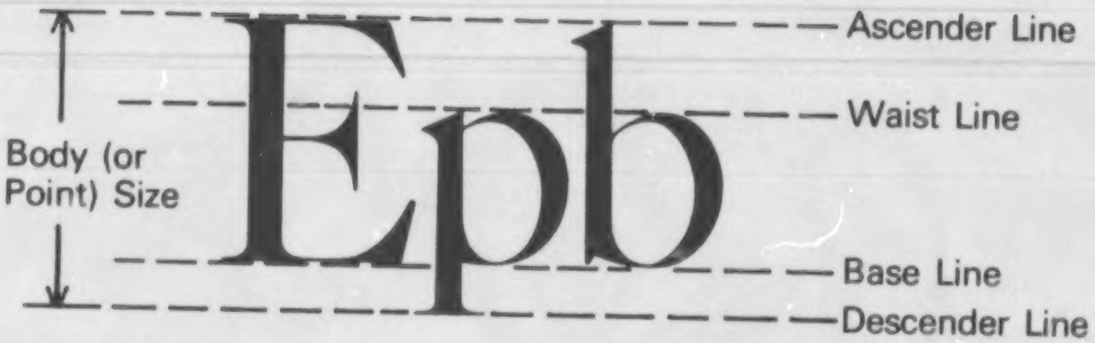
Quads


Em Em
A 2 Em Quad
Em Em Em
A 3 Em Quad
Em Em Em Em
A 4 Em Quad

ETC.

Measuring Body Size and Leading

Body Size Measuring


Ascender Line
Waist Line
Body (or Point) Size
Epb
Base Line
Descender Line

How to Measure Line Depth

Base line Measuring and fitting type are not difficult processes, but they require knowl-
Base line edge of such terms as "point," "pica," "measure," "leading," and "justify," plus } line depth
Base line some mathematical ability. } line depth

Base Line to Base Line

TOPOGRAPHY
UNIT II

ASSIGNMENT SHEET #1 DISTINGUISH BETWEEN HOT AND COLD TYPE CHARACTERISTICS

Directions: Distinguish between hot and cold type characteristics from the statements below by writing "H" for hot type, and "C" for cold type.

______a. Is also called "relief" composition

______b. Is sometimes called three-dimensional type

______c. Photo-typesetting

______d. Any copy that can be photographed

______e. Directly presses against the paper and transfers inked image to surface

______f. Two-dimensional image

TOPOGRAPHY
UNIT II

ASSIGNMENT SHEET #2--IDENTIFY TYPE STYLES

Directions: From a magazine or newspaper, locate examples of the six different type styles listed below. Paste these on the sheet and label with appropriate name. Also list four basic italic styles.

a. Roman

b. Gothic

c. Square Serif

d. Text

e. Script

f. Novelty

TYPOGRAPHY
UNIT II

ASSIGNMENT SHEET #3--MEASURE TYPE

Directions: Using a line gauge, measure the type copy shown below and write the appropriate answer for each.

Line Length

a. ______ picas wide

b. ______ picas wide

c. ______ picas wide

Body Size

d. ______ points

e. ______ points

f. ______ points

Measuring and fitting type are not diffi-
cult processes, but they require know-

Measuring and fitting type are not difficult pro-
cesses, but they require knowledge of the meaning

Measuring and fitting type are not difficult processes, but
they require knowledge of the meaning of various terms

Calculations. As a result, your prediction of

The Typewritten Copy

Typewritten Copy

Leading and Line Depth

g. ______ point body type size

h. ______ point leading

Measuring and fitting type are not
difficult processes, but they require
knowledge of the meaning of such
terms as point, pica, measure, leading,
and justify, and some mathematical

TYPOGRAPHY
UNIT II

ASSIGNMENT SHEET #4–CALCULATE COPYFITTING

Directions: Calculate, in picas and points, the space the typewritten copy below will occupy if it is:

a. Set solid in 12 point Aldine Roman (2.5 characters per pica average) justified on a 24 pica measure

b. Set solid in 9 point Press Roman (2.9 characters per pica average) justified on an 18 pica measure

c. Set in 12 point on 15 Aldine Romam (2.5 character per pica average) justified on a 30 pica measure

Answers:

a. ____________________

b. ____________________

c. ____________________

Measuring and fitting type are not difficult processes, but they require knowledge of the meaning of such terms as point, pica, measure, leading and justify, and some mathematical ability. Also, you have to keep in mind that, although you are dealing with measurements as small as about 1/72 of an inch, you are still not going to be able always to predict exactly how much space a given piece of copy is going to occupy when it is set in type. The reason for this unpredictability is that, in type, different characters are of different widths, and (since it would take too much time to add up all the different widths of all the different characters) we use an average character width in our calculations. As a result, your prediction of space to be occupied by type in a medium-length paragraph may be a line or so long or short. Still your prediction will be close enough to be able to make a good layout, and, with good editing, it is even possible to make it come out "on the nose."

TYPOGRAPHY
UNIT II

ASSIGNMENT SHEET #5-MARK-UP COPY

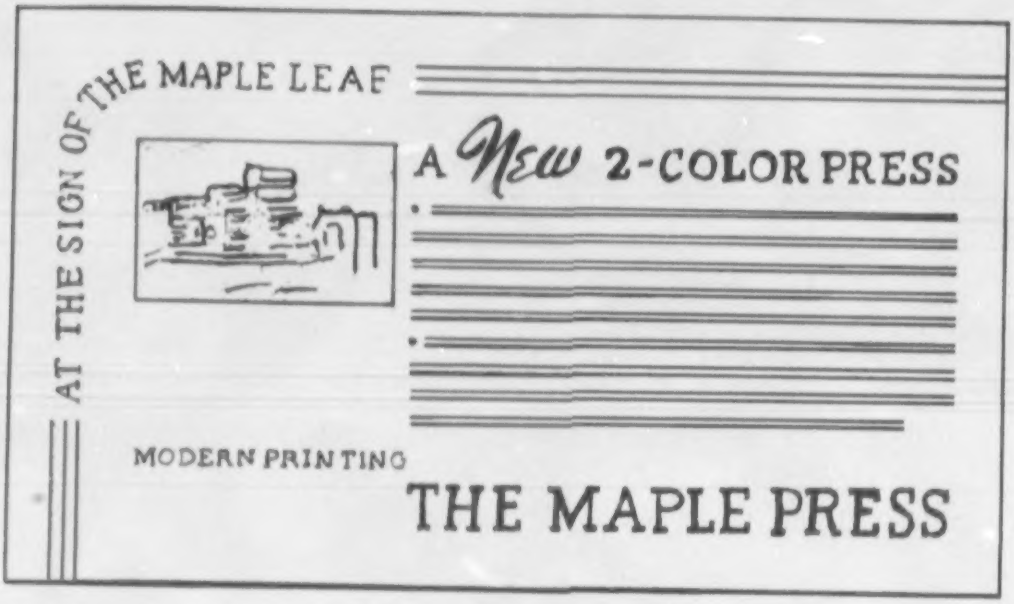
Directions: Mark-up the layout shown below. Indicate all of the following:

a. Text type size and style

b. Width of columns in picas

c. Display type size and style

d. Leading


AT THE SIGN OF THE MAPLE LEAF
A New 2-COLOR PRESS
MODERN PRINTING
THE MAPLE PRESS

G I - 55-B

TYPOGRAPHY
UNIT II

ANSWERS TO ASSIGNMENT SHEETS

1. a. H
   b. H
   c. C
   d. C
   e. H
   f. C
2. Evaluated to the satisfaction of the instructor
3. a. 15
   b. 19 1/2
   c. 22 1/2
   d. 11
   e. 18
   f. 30
   g. 11
   h. 12
4. a. 17 picas
   b. 15 picas and 9 points
   c. 17 picas and 3 points
5. Evaluated to the satisfaction of the instructor

TYPOGRAPHY
UNIT II

NAME______________________________

TEST

1. Match the terms on the right with the correct definitions.

______a. One or more printed characters

______b. A three-dimensional mold or pattern from which characters can be printed directly onto the paper

______c. The two-dimensional image from which characters can be printed, such as "strike-on," clip art, illustrations, and photo-typesetting

______d. Any type that has been placed on copy by the means of a key or font containing the characters striking paper

______e. Material, such as illustrations, letters, and designs, clipped from available sources and utilized as camera copy

______f. Characterized by surface inequalities, such as the inked, raised letters in letterpress printing

______g. The process of finding out how much space is needed to print the words in a job

______h. The width of a line of type

______i. The space between lines of type

______j. All lines of typeset copy are even on both sides

______k. In type, the part of the lower case letter that rises above the waist line

______l. In type, the part of the lower case letter that goes below the base line

______m. The distance from the bottom of descender to the top of capital letter

1. Strike-on type
2. Lower case
3. Measure
4. Justified
5. Hot type
6. Descender
7. Relief type
8. Cold type
9. Mark-up
10. Type
11. Serifs
12. Body height
13. Copyfitting

______n. Capital letters only

______o. Small, non-capital letters only

______p. The small cross strokes that project out from the main letter strokes

______q. Type 14 points or larger

______r. Type 12 points and smaller

______s. Instructions to the compositor regarding size, style of type, and margins of the layout

______t. A ruler that is calibrated in points, picas, and inches

______u. All lines of typeset copy are flush right, or, lined up on right side

______v. Typesetting that is produced by exposure to light, images of letters or numerals, onto light-sensitive paper or film

______w. All lines of typeset copy are flush left, or, lined up on left side

14. Body type
15. Leading
16. Upper case
17. Clip art
18. Line gauge
19. Heads type
20. Ascender
21. Photo-typesetting
22. Quad-left
23. Quad-right

2. Distinguish between hot and cold type characteristics in the statements below by marking an "H" next to the characteristics of hot type and a "C" next to the characteristics of cold type.

______a. Three-dimensional type

______b. Two-dimensional image

______c. Also known as "relief" composition

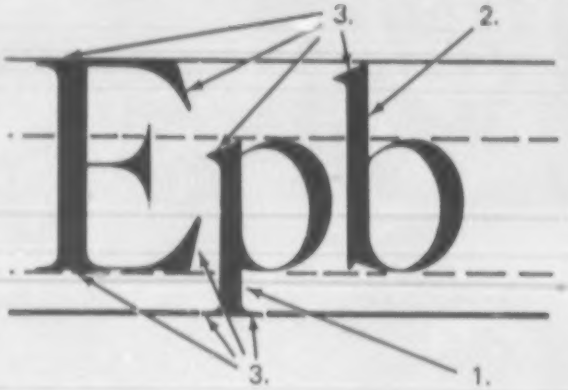
______d. Mold or pattern from which characters can be printed

3. Identify parts of a type character from the illustration below by placing the appropriate number in the proper blank.

______a. Serifs

______b. Descenders

______c. Ascenders



4. Identify the type styles shown by indicating with the appropriate number.

_____a. Text
_____b. Roman
_____c. Script
_____d. Novelty
_____e. Square Serif
_____f. Gothic

Bodoni Book ABCDEFGHIJKLMNOPQRSTU 12
Caledonia ABCDEFGHIJKLMN 12
Cooper Old Style ABCDEFGHIJKLM 12
1.

Clarendon Bd Ex 12
Karnak Black Condensed ABCDEFGHIJKL 12
Stymie Medium ABCDEFGHIJKLM 12
2.

Bank Script ABCDEFG 12
Stradivarius ABCDEFGHI 12
Liberty ABCDEFGHIJ 12
3.

Helvetica Bld Ext ABCDEFGH 12
Impact ABCDEFGHIJJKLMNOPQR 12
Standard Extra Lt Ext ABCDEF 12
4.

Old English ABCDEFGHIJKLMNO 12
American Text ABCDEFGHIJKLMNOPQR 12
Wedding Text ABCDEFGHIJKLMNOPQ 12
5.

Charleston ABCDEFGHIJKLMN 12
FONTANESI ABC 12
GRAPHIQUE ABCDEFGHIJKLMNOPQRSTUV 12
THUND AB 12
STENCIL ABCDEFG 12
6.

5. Match the terms related to type fonts, type series, and type families with the correct characteristics.

   (NOTE: Answers may be used more than once.)

   ______a. All series of one general type design

   ______b. One size of characters in a type face

   ______c. Some fonts include small capitals or italics

   ______d. All sizes of one typeface

   1. Type font
   2. Type family
   3. Type series

6. Select true statements concerning units of measurement by placing an "X" in the appropriate blanks.

   ______a. The smallest unit of measurement is the point

   ______b. The square of the typebody of any size is the En

   ______c. One pica is equal to exactly 12 points

   ______d. The pica is used to measure type body size

   ______e. Six picas equal approximately one inch

   ______f. The quad is blank type used to space out at the ends of lines in type composition and to indent

7. Select true statements concerning measuring type by placing an "X" in the appropriate blanks.

   ______a. Body size is measured from the bottom of the descender to the top of the ascender

   ______b. Line length is also known as "measure"

   ______c. Type 12 points or smaller is known as "display" type

   ______d. Leading is measured from base line to base line

   ______e. Line length is measured in picas with a line gauge

8. Select true statements concerning copyfitting by placing an "X" in the appropriate blanks.

   ______a. To determine the depth of typeset copy, calculate leading plus type point size times number of lines

   ______b. To determine the total of typewritten characters on an elite typewriter, multiply line length by 10, times the number of lines ______c. In using the vertical line method, one should begin by drawing a vertical line down the typewritten copy at the end of the shortest full line of type

______d. To convert typewriter characters to typesetting, one should determine both type size and type characters per pica

9. Select true statements concerning marking up copy.

______a. Mark instructions on the copy, not in the margins

______b. Mark type style and size on text and display copy

______c. Mark line measures and leading

______d. After preparing copy, read and correct it with proper proofreading marks

10. Measure the type in the example shown below.

Univers Bold,___on___(_pts. leading)

Measuring and fitting type are not difficult processes, but they require knowledge of such terms as "point," "pica," "measure," "leading," and "justify," plus some mathematical ability.

______a. Line length

______b. Body size of type

______c. Points of leading

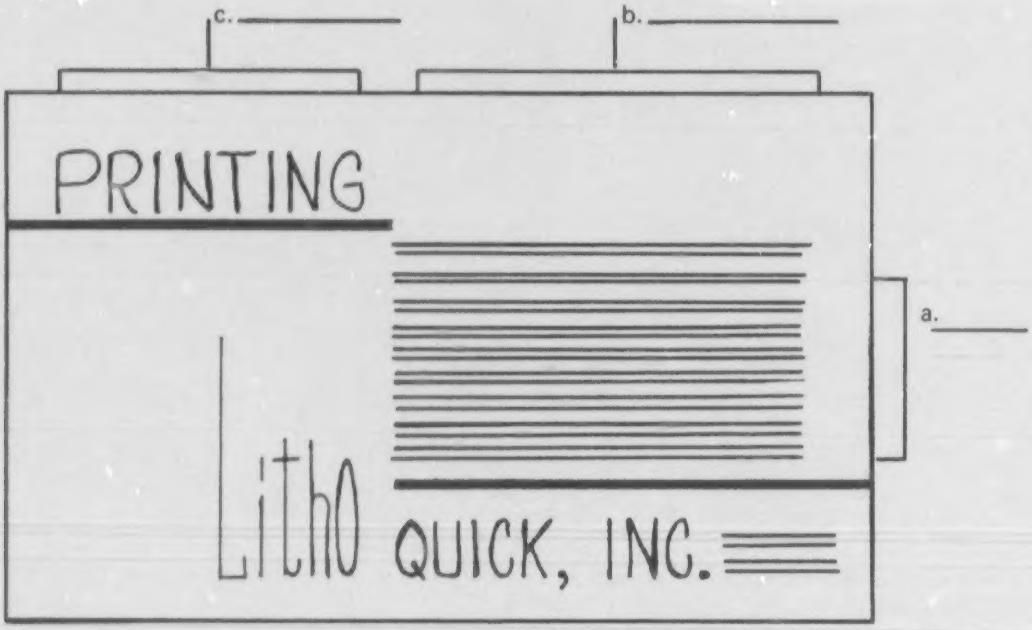
11. From the typewritten copy below, calculate, in picas and points dimensions, the space it will occupy if it is set solid in 12 point Aldine Roman, 2.5 characters per pica, and justified on an 18 pica measure.

exactly how much space a given piece of copy is going to occupy when it is
set in type. The reason for this unpredictability is that, in type, different
characters are of different widths, and (since it would take too much time
to add up all the different widths of all the different characters) we use an
average character width in our calculations. As a result, your prediction of
space to be occupied by type in a medium-length paragraph may be a line
or so long or short.

______deep by 18 picas wide

12. Mark-up the layout shown below by placing the appropriate number by the letter.

    1. 12 point Futura light, caps and lower case
    2. 15 pica measure
    3. 30 point Futura Bold, all capital letters


c. ______
b. ______
a. ______
PRINTING
Litho
QUICK, INC.

TYPOGRAPHY
UNIT II

ANSWERS TO TEST

1. a. 10
   b. 5
   c. 8
   d. 1
   e. 17
   f. 7
   g. 13
   h. 3
   i. 15
   j. 4
   k. 20
   l. 6
   m. 12
   n. 16
   o. 2
   p. 11
   q. 19
   r. 14
   s. 9
   t. 18
   u. 23
   v. 21
   w. 22

2. a. H
   b. C
   c. H
   d. H

3. a. 3
   b. 1
   c. 2

4. a. 5
   b. 1
   c. 3
   d. 6
   e. 2
   f. 4

5. a. 2
   b. 1
   c. 1
   d. 3

6. a, c, e, f

7. a, b, d, e

8. a, c, d

9. b, c, d

10. a. 35 1/2 picas
    b. 11 point
    c. 12 points

11. 11 picas

12. a. 1
    b. 2
    c. 3

DESIGN PRINCIPLES
UNIT III

UNIT OBJECTIVE

After completion of this unit, the student should be able to select true statements concerning white space and simplicity, horizontal and vertical centers, proportion, and methods used to achieve rhythm. The student should also be able to complete a drawing of the printer's color wheel and label magazine ads which utilize design principles. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms related to design principles with the correct definitions.
2. Select true statements concerning the characteristics which contribute to the fitness of a layout.
3. Match the effects of tone with their type characteristics.
4. Identify methods used to achieve emphasis.
5. Select true statements concerning the use of white space and simplicity.
6. Identify types of balance.
7. Select true statements concerning horizontal and vertical centers.
8. Select true statements concerning proportion.
9. Identify types of good and poor shape harmony.
10. Select true statements concerning methods used to achieve rhythm.
11. Select true statements concerning color.
12. Complete a drawing of the printer's color wheel with the proper primary and secondary colors.
13. Match terms related to color harmony with the correct definitions.
14. Select true statements concerning color balance.
15. Select true statements concerning color selection.
16. Match colors with their characteristics.

17. Distinguish between types of good and poor shape harmony.
18. Identify methods used to achieve rhythm.
19. Label magazine ads which utilize design principles.

DESIGN PRINCIPLES
UNIT III

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Make transparencies.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. A visit to a commercial art department or advertising agency to observe design principles being utilized is suggested, as well as the making of any job sheets the instructor deems necessary.

VII. Instructor should bring a color wheel to class and discuss properties of color.

VIII. Invite an art teacher to class to discuss design principles and color.

IX. Create some layouts utilizing design principles taught in this unit and discuss with class.

X. Show examples of spot colors used in ads and discuss.

XI. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:
  - A. Objective sheet
  - B. Information sheet
  - C. Transparency masters
    1. TM 1–Methods Used to Achieve Emphasis
    2. TM 2--Types of Balance
    3. TM 3--Types of Good and Poor Shape Harmony
    4. TM 4--Methods Used to Achieve Rhythm

D. Assignment sheets

1. Assignment Sheet #1--Identify Methods Used to Achieve Emphasis
2. Assignment Sheet #2--Identify Types of Balance
3. Assignment Sheet #3--Distinguish Between Types of Good and Poor Shape Harmony
4. Assignment Sheet #4--Complete a Drawing of the Printer's Color Wheel with the Proper Primary and Secondary Colors
5. Assignment Sheet #5--Identify Methods Used to Achieve Rhythm
6. Assignment Sheet #6--Label Magazine Ads Which Utilize Design Principles

D. Answers to assignment sheets

E. Test

F. Answers to test

II. References:

A. Hawkinson, Bruce. *Graphic Arts: A Curriculum Manual.* Albuquerque, NM 87503: Vo-Tech Division of the New Mexico State Department of Education, 1975.

B. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

C. Spence, Dr. William and Dr. David Vequist. *Graphic Reproduction.* Peoria, IL 61615: Chas. A. Bennett Co., Inc., 1980.

D. Prust, Z. A. *Photo-Offset Lithography.* South Holland, IL 60473: Goodheart-Willcox Co., Inc., 1977.

E. Brockhuizen, Richard J. *Graphic Communications.* Bloomington, IL 61701: McKnight & McKnight Publishing Co., 1973.

F. Orr, Kenneth. *Printing Layout and Design.* Albany, NY: Delmar Publ., 1968.

III. Additional Materials -- Kodak Publishing. *Graphic Design.* No. GA-11-2. Rochester, NY 14650: Graphic Markets Div./Eastman Kodak Co., 1976.

DESIGN PRINCIPLES
UNIT III

INFORMATION SHEET

I. Terms and definitions

A. Element--Each individual portion of the printed message

Examples: A heading, an illustration, a paragraph, a footnote, a decoration, a photograph

B. Fitness--Physical appropriateness of type and paper to the printed message

C. Tone--Psychological appropriateness of type and paper to the printed message

D. Emphasis--Arrangement of elements on a page to attract most attention to the most important element

E. Balance--Pleasing arrangement of elements on a page

(NOTE: Each element should relate to the center of the page in such a way that one side of the page does not appear heavy with type, while the other side is blank (light) or nearly blank.)

F. Proportion--Pleasing arrangement of margins, page sizes, and shapes

G. Shape harmony--Compatibility of all the elements on a page

H. Rhythm--Leads the reader's eye in the desired direction and draws attention to various elements of the design

(NOTE: Design terms often have more than one name. For example, fitness and tone are referred to as style; emphasis is called contrast; shape harmony is called unity, and rhythm is called movement.)

I. Color tone--The lightness or darkness of a color

J. Hue--One color added to another color

K. Shade--Black added to a color to make it darker

L. Tint--White added to a color to make it lighter

M. Intensity--The full strength or purity of a color

N. Primary color--One which can not be made by mixing other colors

INFORMATION SHEET

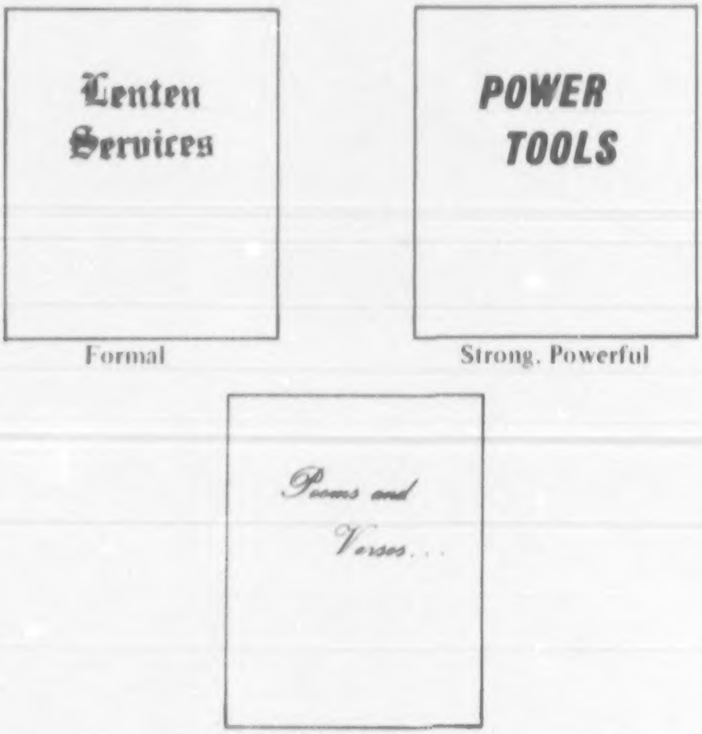
II. Characteristics which contribute to the fitness of a layout

- A. Compatability of type size and style with paper
- B. The use of decorative borders
- C. Size and shape of layout
- D. Kind and weight of paper

III. Effects of tone and type characteristics (Figure1)

- A. Restrained and formal--Type style with dignity and formality
- B. Strength, power, and masculinity--Sturdy, heavy type style
- C. Light, airy, feminine--Thin and flowing type

FIGURE 1 Types Displaying Tone



Formal

Strong, Powerful

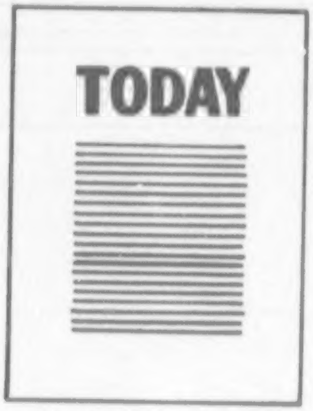
Light, Airy

INFORMATION SHEET

IV. Methods used to achieve emphasis (Transparency 1)

A. Elements larger or heavier than other elements on layout (Figure 2)

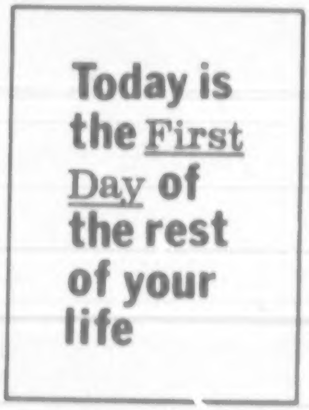
FIGURE 2



Emphasis by Type,
Size and Weight

B. Contrasting type faces (Figure 3)

FIGURE 3

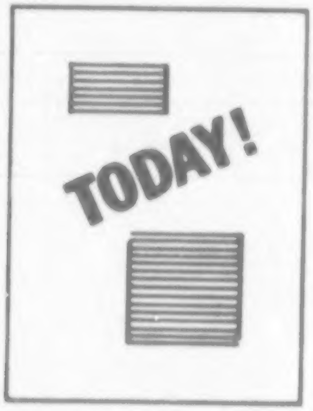

Today is
the First
Day of
the rest
of your
life

Emphasis by Use
of Contrasting Type

INFORMATION SHEET

C. Arrangement on page to contrast with other elements (Figure 4)

FIGURE 4



Emphasis by Arrangement

D. Different color ink for one element

E. Screen tint

1. May be used for one element
2. May be used for all but one element

F. Borders around one element

G. Ruled lines

1. Around one element
2. Pointing toward one element

V. Use of white space and simplicity

A. White space affects the quality and readability of material to be printed

(NOTE: More information can often be communicated with less type and careful use of white space.)

B. Simplicity

1. Too many different type styles should be avoided
2. Elaborate, fancy type styles can ruin the effectiveness of a design unless used carefully and sparingly

INFORMATION SHEET

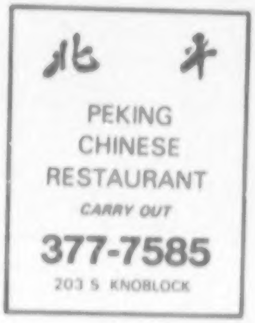
VI. Types of balance (Transparency 2)

A. Formal balance (Figure 5)

1. Each element that appears on one side of the design also appears on the other side
2. Usually built around a vertical center line

(NOTE: Formal balance is generally used where dignity is required.)

FIGURE 5



北 平

PEKING
CHINESE
RESTAURANT
CARRY OUT
377-7585
203 S. KNOBLOCK

Formal

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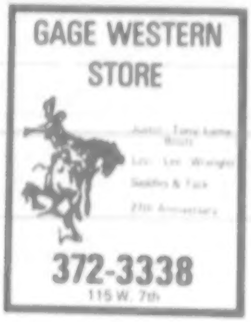
B. Informal balance (Figure 6)

1. Design is not symmetrical
2. Elements are distributed in such a manner that their weights balance each other

FIGURE 6



GAGE WESTERN STORE

372-3338
115 W. 7th

Informal

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INFORMATION SHEET

VII. Horizontal and vertical centers

A. Horizontal

1. The center from side to side

2. Mathematical center, when measured

(NOTE: If page is to be bound, the type of binding may require consideration in determining the center of the design.)

B. Vertical (Figure 7)

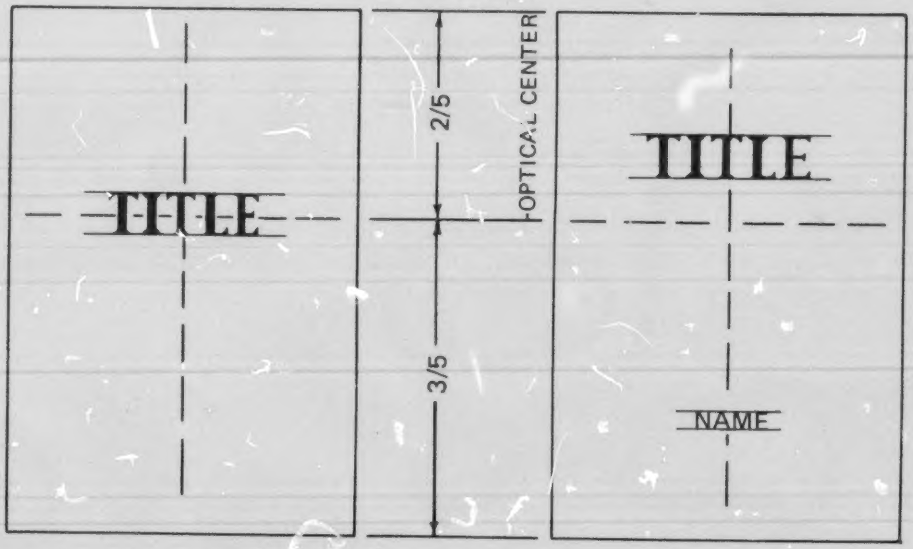
1. Optical, or apparent center, from top to bottom

2. Not a true mathematical center

(NOTE: To find the optical center, divide the page vertically into 5 equal parts; the center of balance is not at the mathematical center, but rather 2/5 of the way down the page.)

3. Center of balance between two or more elements should follow the page center of balance

FIGURE 7

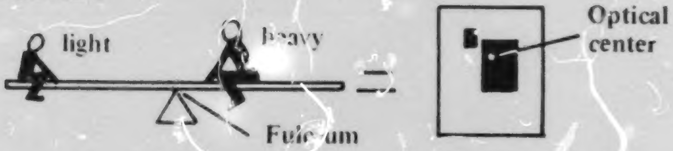


INFORMATION SHEET

4. The heavier the element in relation to other elements, the nearer it should be placed to the center of balance

(NOTE: Finding the center of balance among elements is similar to finding the center of balance on a teeter-totter. See Figure 8.)

FIGURE 8



VIII. Proportion

A. Margins

1. Single page margins should make type area appear optically centered

2. Facing pages normally have inside (gutter) margins 1/2 to 3/4 size of outside margins

B. Borders

1. May be ruled or decorative

2. Margin outside border should be approximately 1 1/2 times as wide as margin inside border

C. Page sizes

1. Regulation of sheet dimensions will aid in achieving proportion

2. Page sizes are usually in a 2-to-3, width-to-height proportion

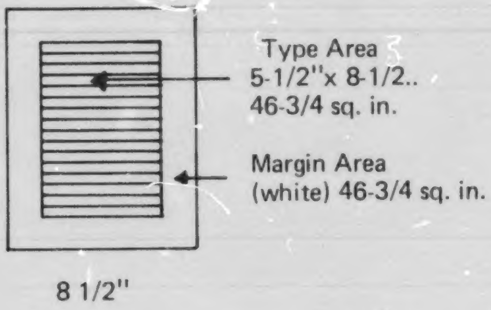
INFORMATION SHEET

D. Type in relation to page size (Figure 9)

1. Ideal proportion is type area equal to area of all four margins

2. Slight variations, for purposes of economy or design, are often made

FIGURE 9



IX. Types of good and poor shape harmony (Transparency 3)

(NOTE: A layout has harmony or unity when the elements appear to be related and held together.)

A. Good shape harmony

1. Types styles should be appropriate to shape of page

   a. Condensed type--narrow pages

   b. Extended type--wide pages

2. Relative dimensions of block of type should harmonize with page shape

3. Type harmony may be achieved by using only one type family

4. When combining two or more types, general shape characteristics should remain the same

B. Poor shape harmony

1. Never use script or text type in all capital letters

2. Never split words between two lines that logically belong on the same line

   Example:

   President Finds Arms
   Agreement A Good One vs.
   For Countries Signing

   President Finds Arms Agreement
   A Good One for Countries Signing

INFORMATION SHEET

X. Methods used to achieve rhythm (Transparency 4)

  A. Examination of layout usually begins at optical center

  B. Exploration of layout continues in a clockwise direction, from center, to upper left, and around

  C. Pointing devices are often used to direct the eye

  D. Element positioning may suggest eye movement

XI. Color

  A. Primary colors

    1. Additive process primary colors--red, blue, and green

      a. Light rays of certain colors are added to other light rays to produce (add up to) a new color

      b. The additive process is used in process color separation, color photography, color television, and stage lighting

    2. Subtractive process primary colors--red (magenta), yellow, and blue (cyan)

      a. White light interacts with a colorant (such as ink) which subtracts (absorbs or filters out) some of the colors from the white light and allows the unabsorbed colors to be seen by the eye

      b. The subtractive process is used to produce printing in full color

  B. Secondary colors

    1. A combination of any two of the primary colors

    2. The secondary colors in the subtractive process are violet (blue and red), green (yellow and blue), and orange (red and yellow)

  C. Tertiary colors

    1. A combination of any two of the secondary colors results in a third or tertiary color

      (NOTE: Tertiary is pronounced tur-she-a-ry.)

    2. The tertiary colors are: russett (orange and violet), citrine (orange and green), and olive (green and violet)

INFORMATION SHEET

D. Intermediate colors

1. By combining primary and secondary colors, other hues can be formed

2. The various combinations are shown in Figure 12

(NOTE: Black and white are not commonly spoken of as colors. Black is the absence of color and white is the presence of all colors.)

XII. The printer's color wheel

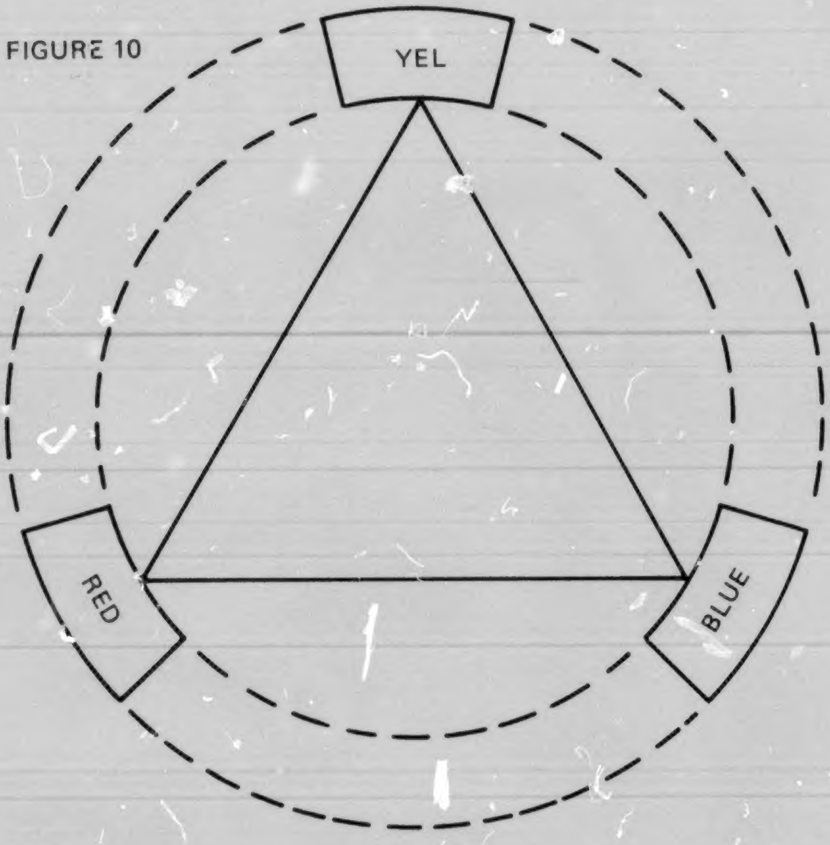
A. Primary colors (Figure 10)

1. Red, yellow, and blue

2. Foundation of color wheel

3. Place in triangular position as shown in Figure 10

FIGURE 10

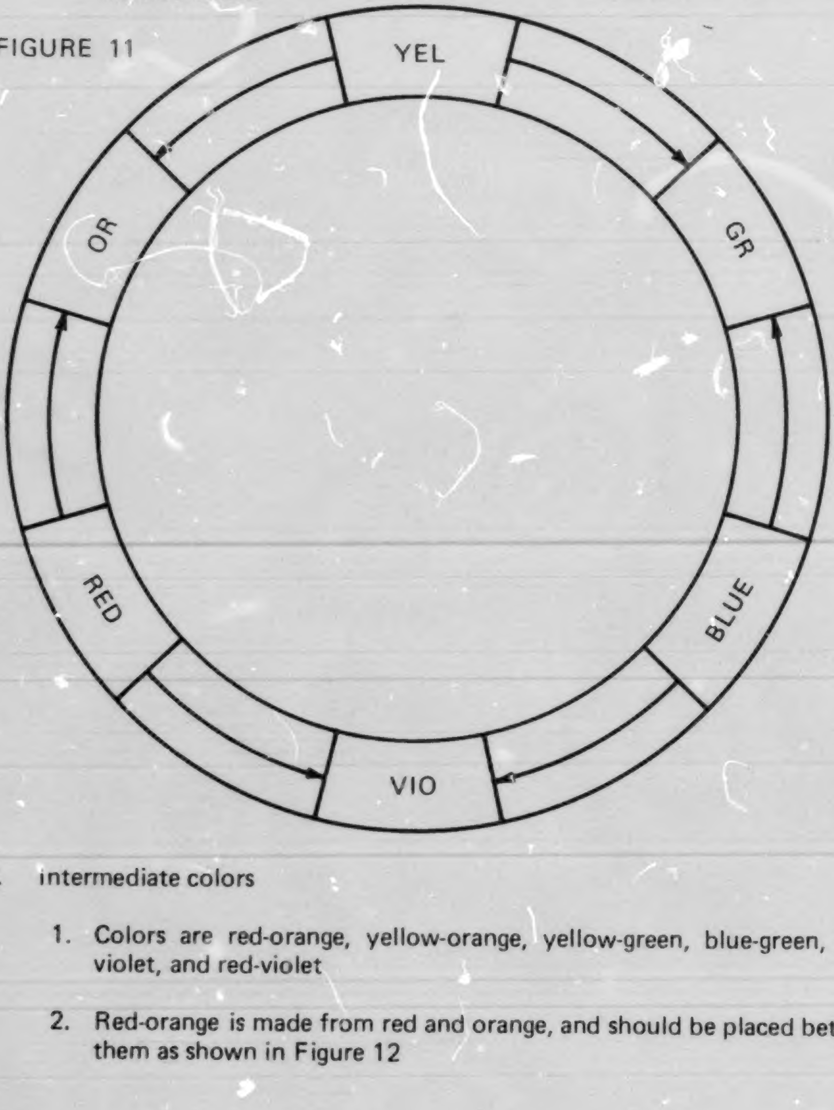


INFORMATION SHEET

B. Secondary colors (Figure 11)

1. Orange, green, and violet
2. Orange is made from red and yellow, and should be placed equidistant between them
3. Green is made from yellow and blue, and should be placed equidistant between them
4. Violet is made from red and blue, and should be placed equidistant between them

FIGURE 11



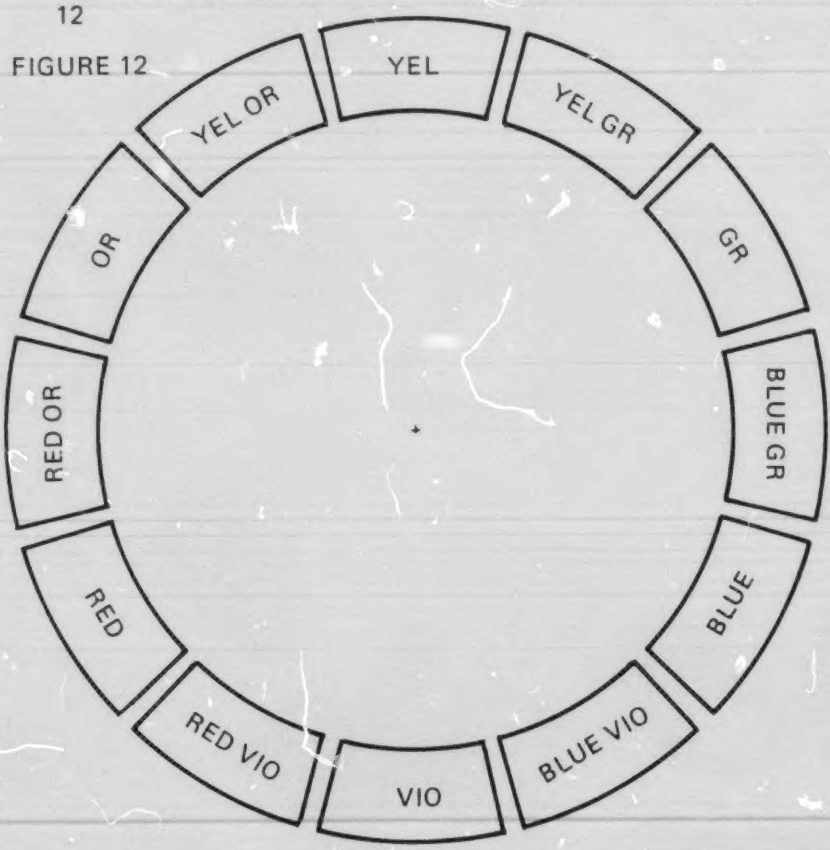
C. Intermediate colors

1. Colors are red-orange, yellow-orange, yellow-green, blue-green, blue-violet, and red-violet
2. Red-orange is made from red and orange, and should be placed between them as shown in Figure 12

INFORMATION SHEET

3. The remainder of the intermediate colors should be placed between the secondary colors of which they are composed, as shown in Figure 12

FIGURE 12



XIII. Color harmony

A. Monochromatic harmony

1. Two or more tones of one color

2. Using colored stock with a darker shade ink of the same color will result in harmonious printing

3. Using white stock, monochromatic harmony may be achieved by using dark colored type with tint blocks, rules, or borders

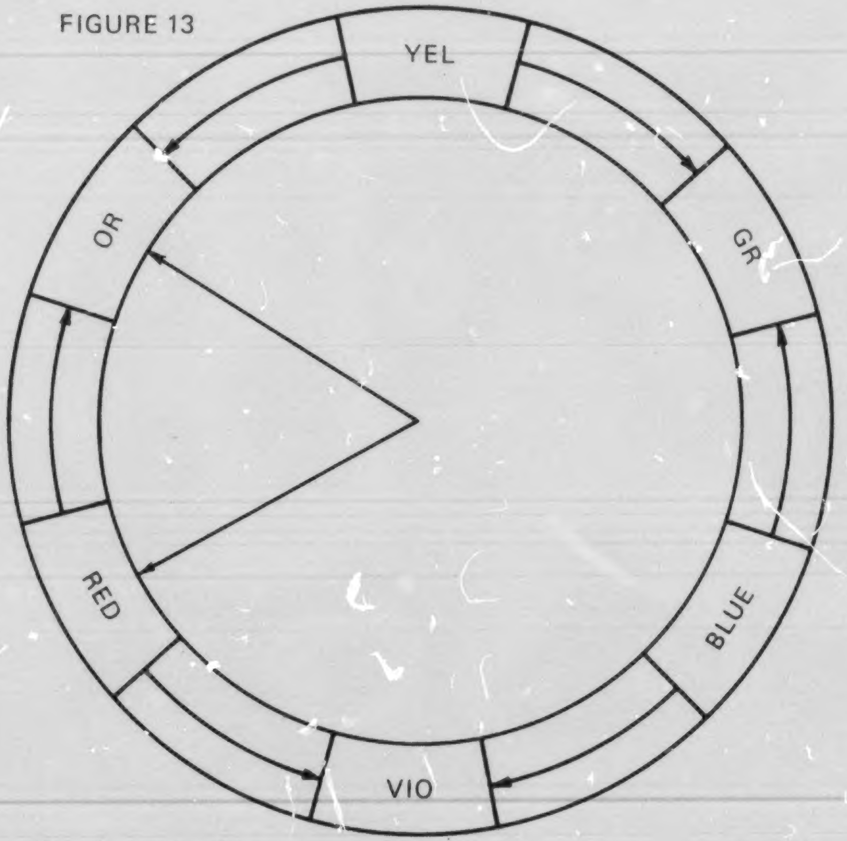
B. Analogous harmony (Figure 13)

1. Combining adjacent (next to each other) secondary colors of the printer's color wheel will create harmony

INFORMATION SHEET

2. More than two adjacent secondary colors should not be used, as they will not harmonize

FIGURE 13



C. Complementary harmony

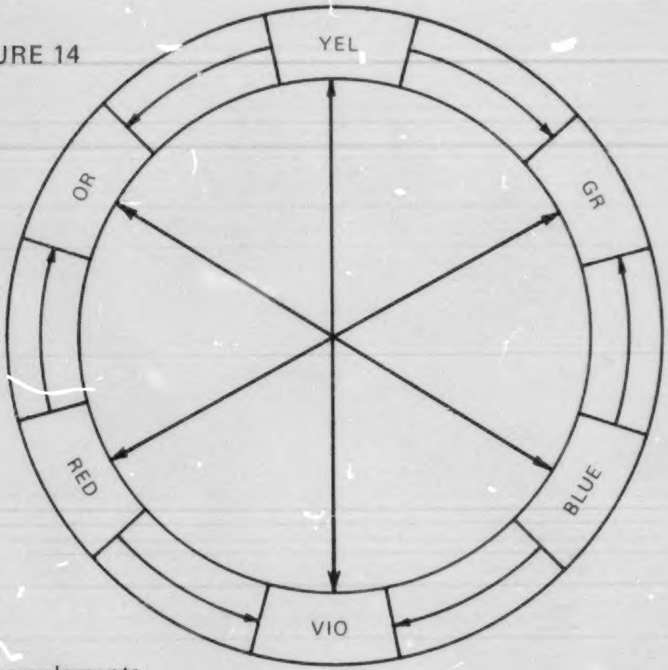
1. Use of two colors directly opposite from each other on the color wheel (Figure 14)

2. Contrasts are formed that attract attention

INFORMATION SHEET

3. Should not be used together in pure form, but one light and one darker

FIGURE 14

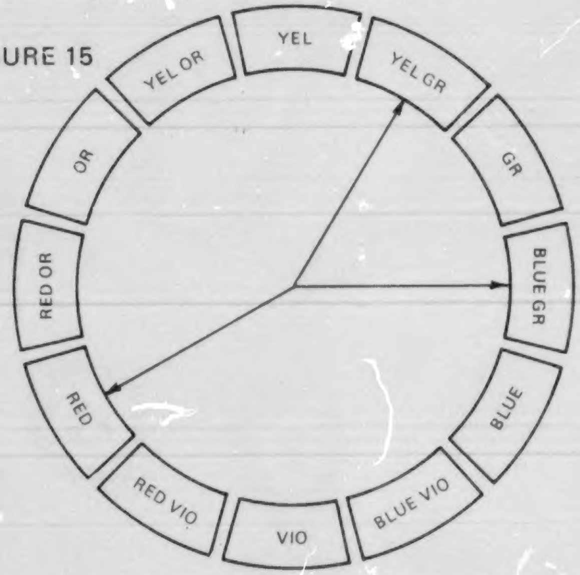

YEL
GR
BLUE
VIO
RED
OR

D. Split complements

1. The colors on each side of the complement may be used instead of the complementary color (Figure 15)

2. Use of split complements results in three color printing

FIGURE 15


YEL
YEL GR
GR
BLUE GR
BLUE
BLUE VIO
VIO
RED VIO
RED
RED OR
OR
YEL OR

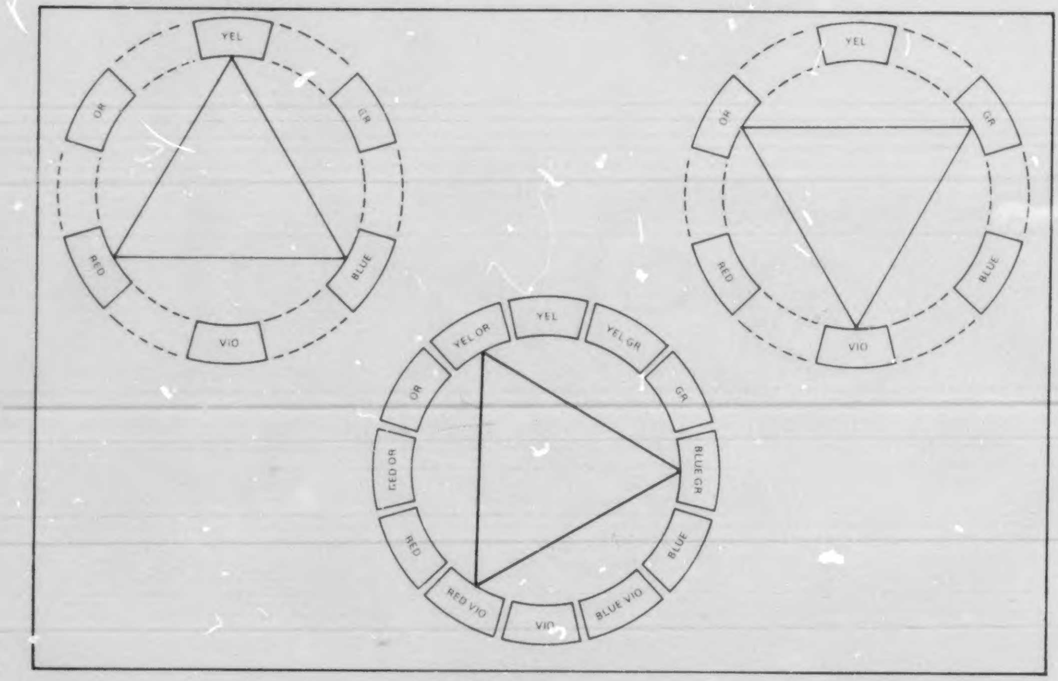
INFORMATION SHEET

E. Triad method (Figure 16)

1. The triangle that is formed on the color wheel by the primary colors of red, yellow, and blue may be rotated to any other combination of three colors to create triad harmony
2. When using triad combinations, they should not all be of the same strength or intensity

   (NOTE: One should be light, one dark, and the other halfway in between.)
3. Equal amounts of the colors should not be used, but a large amount of one, and smaller amounts of the other two will give harmonious results

FIGURE 16


YEL
GR
BLUE
VIO
RED
OR
YEL
GR
BLUE
VIO
RED
OR
YEL
YEL GR
GR
BLUE GR
BLUE
BLUE VIO
VIO
RED VIO
RED
RED OR
OR
YEL OR

F. Black, white, and gray

1. May be used with any color or combination of colors and result in perfect harmony
2. Colors that do not harmonize may be brought into harmony by separating them with bands or edgings of black, white, or gray

INFORMATION SHEET

XIV. Color balance

A. Horizontal

1. If color is used on one side of page, it should be repeated on the other side

2. The larger the mass of color, the nearer it should be placed to the center of the page

B. Vertical

1. If color is used above the optical center of the page, it should be balanced by color below the center

2. Balance may be achieved by use of rules, symbols, or borders of the color

XV. Color selection

A. Preferences

1. In pure colors and in shades, men prefer blue first

2. Red is the first choice of the pure colors for women, and violet is preferred in shades

3. Pure, brilliant colors should be used when printing for younger people

4. Older persons prefer soft tones

B. Cool and warm colors

1. Cool colors--violet, blue, and dark green

a. Present a cool sensation to the observer

b. Used to advertise a cool drink or a summer camp

2. Warm colors–red, yellow, and orange

a. Associated with sunshine, fire, etc.

b. Well suited for printing ads on heaters and blankets

C. Background colors

1. Warm colors advance, or appear closer to a reader

2. Cool colors recede, and in most cases, are better background colors, as this makes type more pronounced

INFORMATION SHEET

D. Appropriate colors

1. Make colors suitable to the type of product to be advertised
2. Natural colors should be used when printing objects that are a common color

   Example: A cut of an orange to be printed in color should be printed in orange

XVI. Characteristics of color

A. Red

1. A bold and powerful color
2. Appealing, but overuse makes it commonplace
3. Not a good background color as it makes type hard to read
4. Small sizes or lightface type should not be reversed on red

B. Yellow

1. A brilliant color, suggesting light or sunshine
2. A good background color when used with black or dark type
3. Should not be used for type matter as it is hard to read
4. Reversing of type on a yellow background should be avoided

C. Orange

1. A brilliant color suggesting wealth or happiness
2. One of easiest colors to use and can be used in almost any manner

D. Green

1. A color of nature, suggesting sincerity
2. Appropriate for use in any manner and may be used in large or small quantities

E. Violet

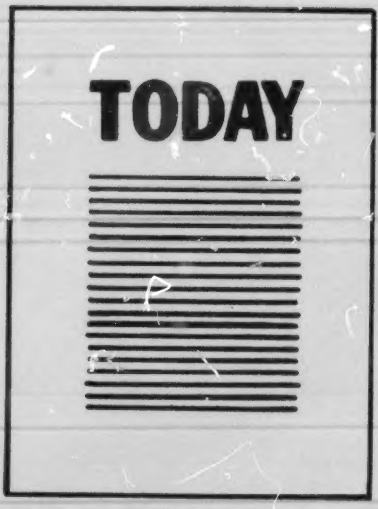
1. Symbolic of splendor and royalty
2. Tints, or shades, makes a good background color

INFORMATION SHEET

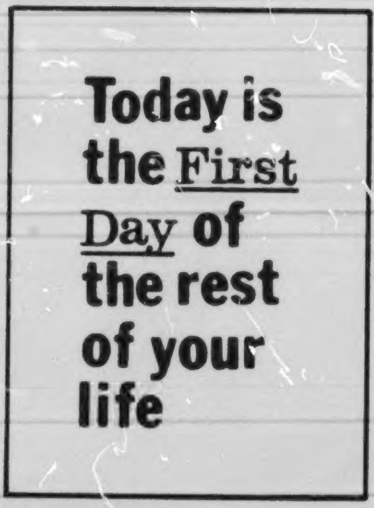
F. Blue

1. Symbolic of sky and water and suggests patience or quietness
2. Favorite color of most people and can be used in any manner
3. A very good background color and can be used very well for reverse type

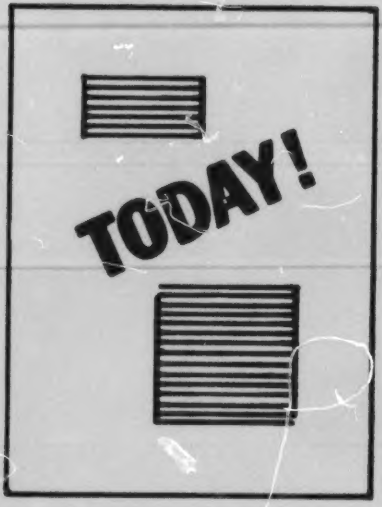
Methods Used to Achieve Emphasis



Emphasis by Type, Size and Weight

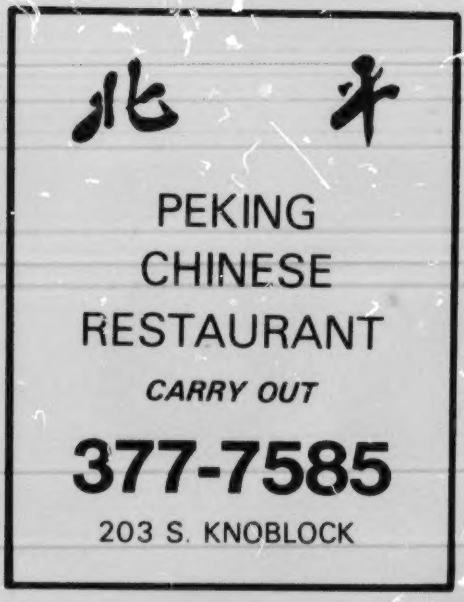

Today is the First Day of the rest of your life

Emphasis by Use of Contrasting Type



Emphasis by Arrangement

Types of Balance



北 平

PEKING
CHINESE
RESTAURANT

CARRY OUT

377-7585

203 S. KNOBLOCK

Formal

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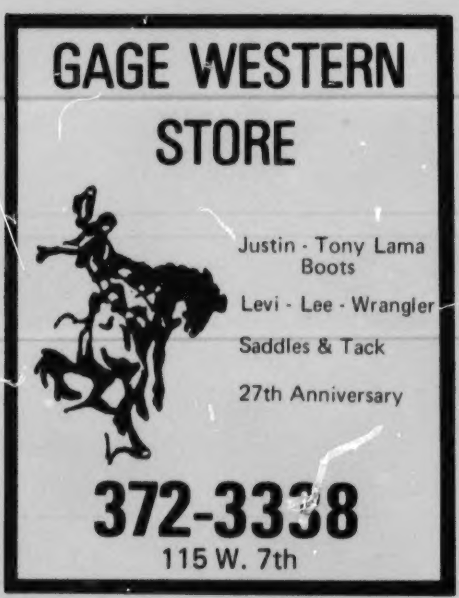

GAGE WESTERN STORE

Justin - Tony Lama Boots

Levi - Lee - Wrangler

Saddles & Tack

27th Anniversary

372-3338

115 W. 7th

Informal

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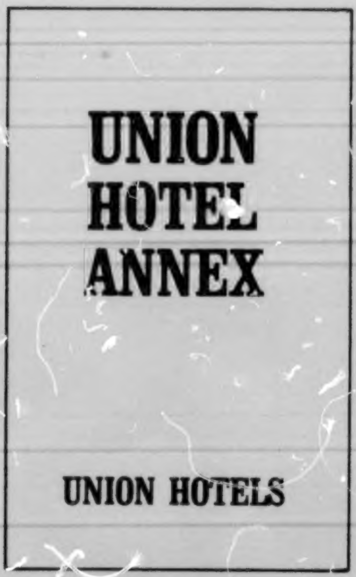
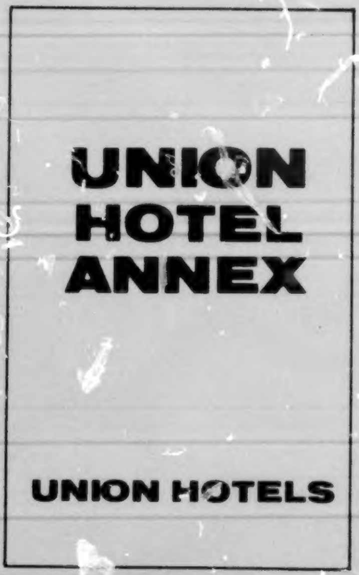
Types of Good and Poor Shape Harmony



UNION
HOTEL
ANNEX

UNION HOTELS

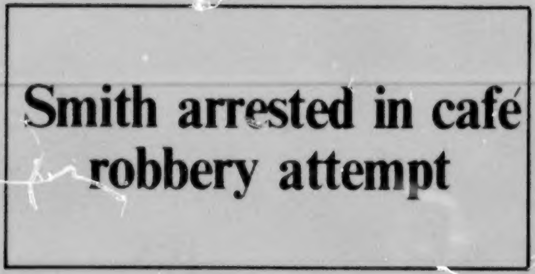
1. Good Shape Harmony. Type is set into a shape similar to shape of page. The condensed type harmonizes with style of paper.



UNION
HOTEL
ANNEX

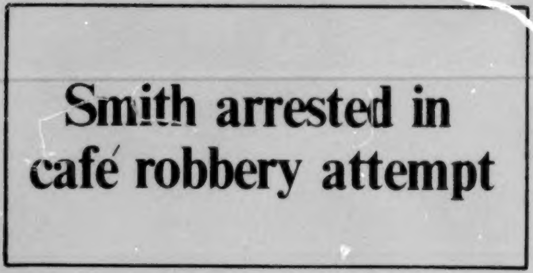
UNION HOTELS

2. Poor Shape Harmony. Type groups are not the same shape as shape of page.



Smith arrested in café
robbery attempt

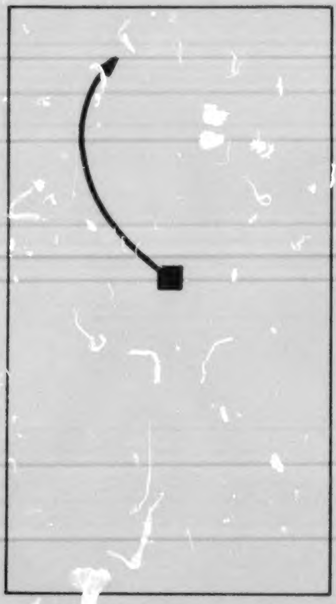
3. Poor Split of Line.



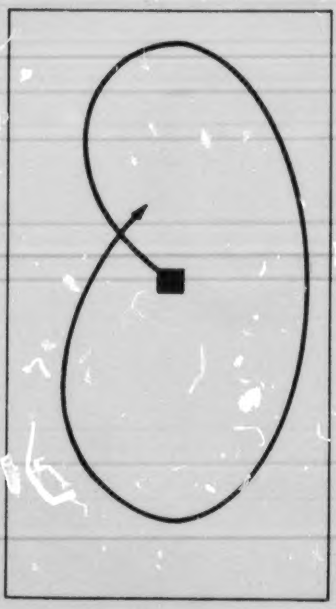
Smith arrested in
café robbery attempt

4. Good Split of Line.

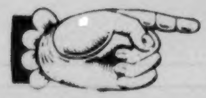
Methods Used to Achieve Rhythm



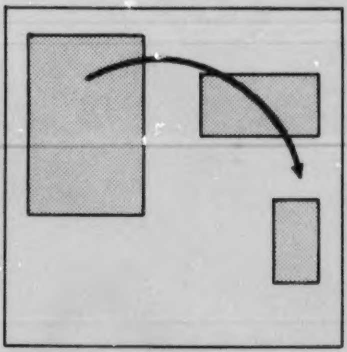
A. Examination of layout begins at optical center.



B. Exploration continues in clockwise direction - from center to upper left, and around.



C. Pointing devices used to direct the eyes.



D. Element positioning may suggest eye movement.

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DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #1--IDENTIFY METHODS USED TO ACHIEVE EMPHASIS

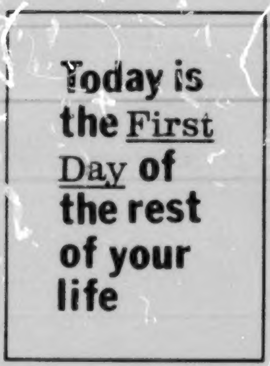
Direction: Identify the methods used to achieve emphasis on the illustrations below by indicating with the proper letter. Answers may be used more than once and more than one method may apply to some illustrations.

a. Large, heavy elements

b. Contrasting type faces

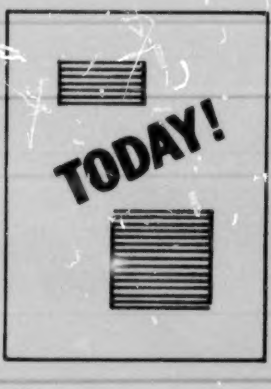
c. Arrangement

d. Color

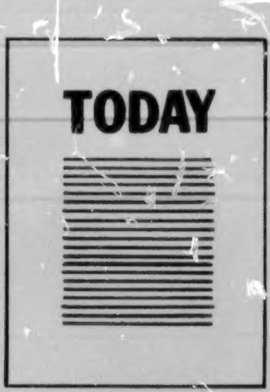


Today is the First Day of the rest of your life

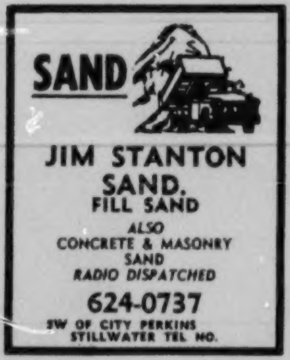
1.____________



2.____________

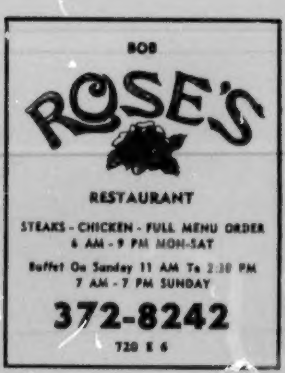


3.____________



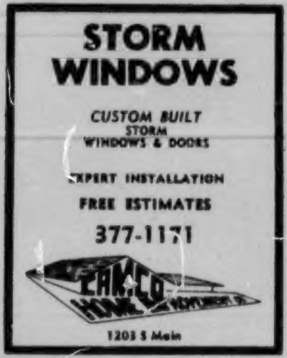
SAND
JIM STANTON
SAND.
FILL SAND
ALSO
CONCRETE & MASONRY
SAND
RADIO DISPATCHED
624-0737
SW OF CITY PERKINS
STILLWATER TEL NO.

4.____________



BOB
ROSE'S
RESTAURANT
STEAKS - CHICKEN - FULL MENU ORDER
6 AM - 9 PM MON-SAT
Buffet On Sunday 11 AM To 2:30 PM
7 AM - 7 PM SUNDAY
372-8242
720 E 6

5.____________



STORM
WINDOWS
CUSTOM BUILT
STORM
WINDOWS & DOORS
EXPERT INSTALLATION
FREE ESTIMATES
377-1171
CAMCO
1203 S Main

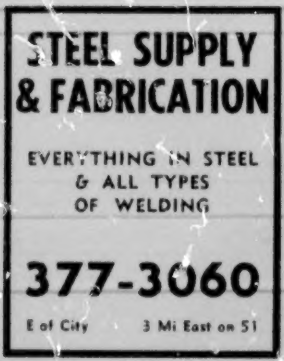
6.____________

Copyright from Southwestern Bell

DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #2--IDENTIFY TYPES OF BALANCE

Directions: Identify types of balance in the illustrations shown below by writing under each whether it is formal balance or informal balance.



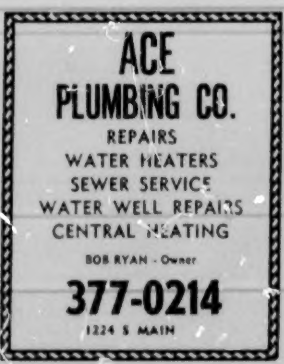
STEEL SUPPLY & FABRICATION

EVERYTHING IN STEEL
& ALL TYPES
OF WELDING

377-3060

E of City 3 Mi East on 51

1.________________



ACE PLUMBING CO.

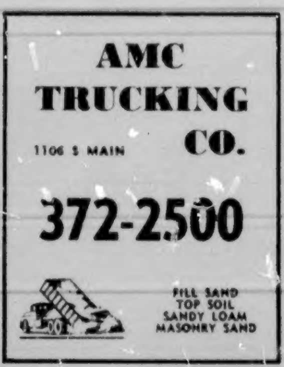
REPAIRS
WATER HEATERS
SEWER SERVICE
WATER WELL REPAIRS
CENTRAL HEATING

BOB RYAN - Owner

377-0214

1224 S MAIN

2.________________



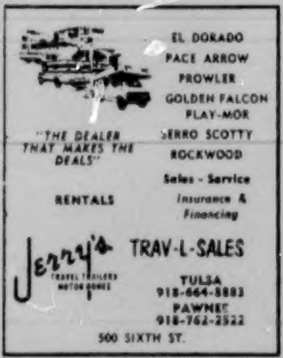
AMC TRUCKING CO.

1106 S MAIN

372-2500

FILL SAND
TOP SOIL
SANDY LOAM
MASONRY SAND

3.________________



EL DORADO
PACE ARROW
PROWLER
GOLDEN FALCON
PLAY-MOR
SERRO SCOTTY
ROCKWOOD

"THE DEALER THAT MAKES THE DEALS"

Sales - Service

RENTALS

Insurance & Financing

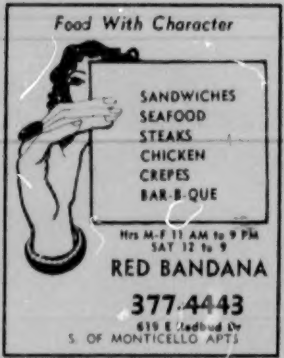
Jerry's TRAV-L-SALES

TRAVEL TRAILERS
MOTOR HOMES

TULSA
918-664-5883
PAWNEE
918-762-2522

500 SIXTH ST.

4.________________



Food With Character

SANDWICHES
SEAFOOD
STEAKS
CHICKEN
CREPES
BAR-B-QUE

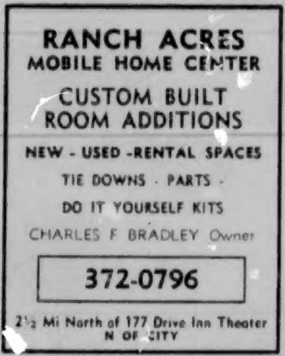
Hrs M-F 11 AM to 9 PM
SAT 12 to 9

RED BANDANA

377-4443

619 E Redbud Dr
S. OF MONTICELLO APTS

5.________________



RANCH ACRES
MOBILE HOME CENTER

CUSTOM BUILT
ROOM ADDITIONS

NEW - USED - RENTAL SPACES
TIE DOWNS - PARTS -
DO IT YOURSELF KITS

CHARLES F BRADLEY Owner

372-0796

2½ Mi North of 177 Drive Inn Theater
N OF CITY

6.________________

Copyright from Southwestern Bell

DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #3--DISTINGUISH BETWEEN TYPES OF GOOD AND POOR SHAPE HARMONY

Directions: Distinguish between types of good and poor shape harmony by placing a "G" before the descriptions of good shape harmony and a "P" before descriptions of poor shape harmony.

______1. Type styles should be appropriate to shape of page

______2. Condensed type should be used for wide pages

______3. When combining two or more types on a layout, they should have different shape characteristics

______4. Extended type faces should be used for wide pages

______5. Relative dimensions of blocks of type should harmonize with page shape

______6. Type harmony may be achieved by using many type families on each layout

DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #4--COMPLETE A DRAWING OF THE PRINTER'S COLOR WHEEL WITH THE PROPER PRIMARY AND SECONDARY COLORS

Directions: Complete the printer's color wheel below by placing the proper letter in the appropriate position.

A. Red

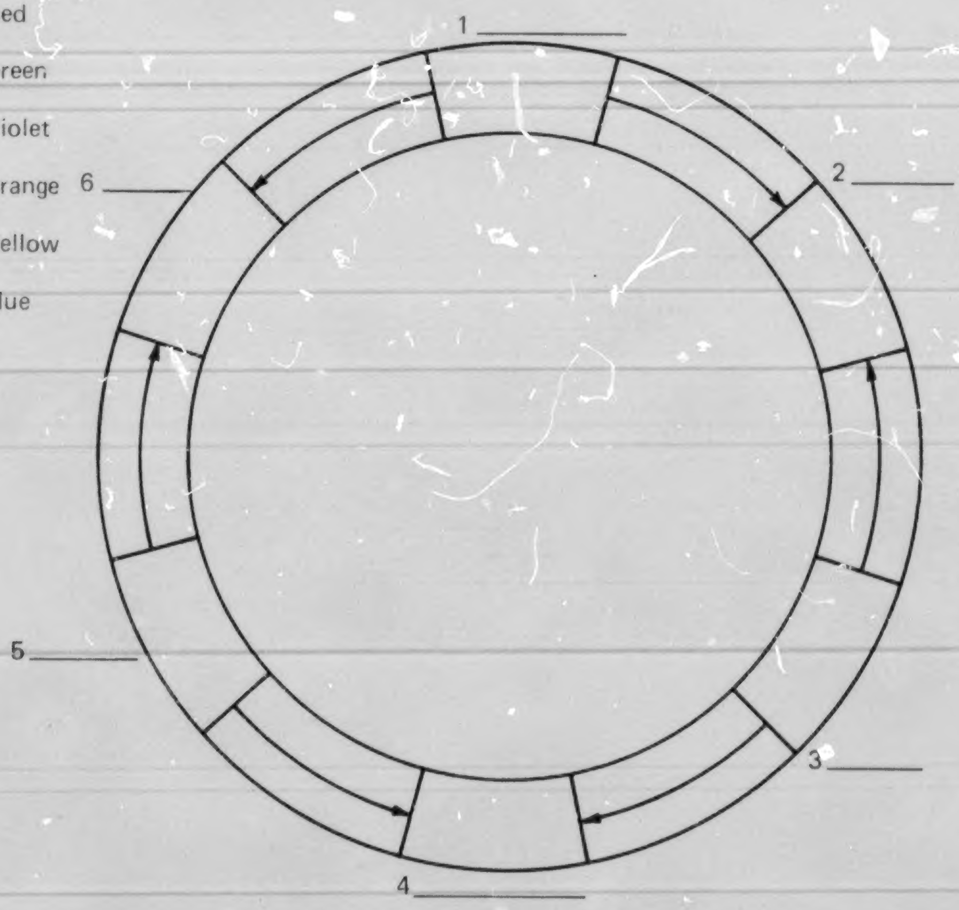
B. Green

C. Violet

D. Orange

E. Yellow

F. Blue



DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #5--IDENTIFY METHODS USED TO ACHIEVE RHYTHM

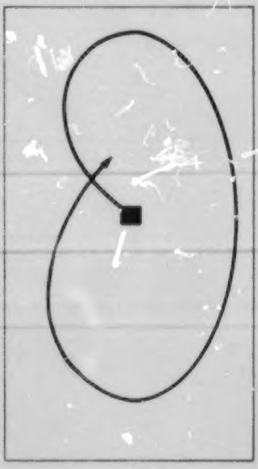
Directions: Identify the methods used to achieve rhythm on the illustrations below by indicating with the proper letter.

A. Examination of layout usually begins at optical center

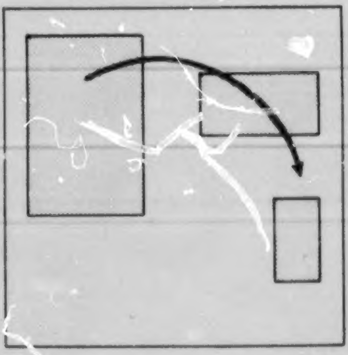
B. Exploration of layout continues in a clockwise direction

C. Pointing devices are used to direct the eye

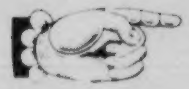
D. Element positioning may suggest eye movement



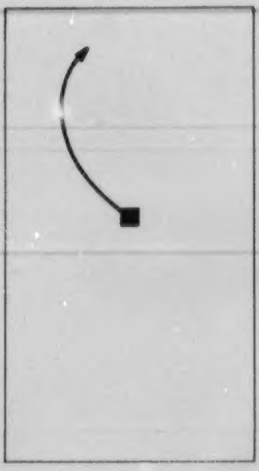
1. ______________________



2. ______________________



3. ______________________



4. ______________________

DESIGN PRINCIPLES
UNIT III

ASSIGNMENT SHEET #6--LABEL MAGAZINE ADS WHICH UTILIZE DESIGN PRINCIPLES

Directions: From magazines furnished by instructor, collect ads utilizing design principles studied in this unit. Cut these ads out, paste on a sheet of paper and label each ad as to what design principle is shown. Find at least one ad of each design principle listed below.

1. Fitness
2. Tone
3. Emphasis
4. White space or simplicity
5. Formal balance
6. Informal balance
7. Rhythm
8. Color harmony
9. Color characteristics

DESIGN PRINCIPLES
UNIT III

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. b
2. c
3. a
4. a or c
5. b or c
6. a

Assignment Sheet #2

1. Formal
2. Formal
3. Informal
4. Informal
5. Informal
6. Formal

Assignment Sheet #3

1. G
2. P
3. P
4. G
5. G
6. P

Assignment Sheet #4

1. E
2. B
3. F
4. C
5. A
6. D

Assignment Sheet #5

1. B
2. D
3. C
4. A

Assignment Sheet #6--Evaluated to the satisfaction of the instructor

DESIGN PRINCIPLES
UNIT III

NAME______________________________

TEST

1. Match terms related to design principles with the correct definitions.

______a. Physical appropriateness of type and paper to the printed message

______b. Psychological appropriateness of type and paper to the printed message

______c. Arrangement of elements on a page to attract most attention to the most important element

______d. Pleasing arrangement of elements on a page

______e. Pleasing arrangement of margins, page sizes, and shapes

______f. Compatibility of all the elements on a page

______g. Each individual portion of the printed message

______h. Leads the reader's eye in the desired direction and draws attention to various elements of the design

______i. The lightness or darkness of a color

______j. One color added to another color

______k. Black added to a color to make it darker

______l. White added to a color to make it lighter

______m. The full strength or purity of a color

______n. One which can not be made by mixing other colors

1. Rhythm
2. Proportion
3. Hue
4. Tone
5. Emphasis
6. Color tone
7. Shade
8. Fitness
9. Element
10. Shape harmony
11. Balance
12. Primary color
13. Tint
14. Intensity

2. Select true statements concerning the characteristics which contribute to the fitness of a layout by placing an "X" in the appropriate blanks.

   ______a. The size and shape of a layout is considered a fitness characteristic

   ______b. Selection of type to match a theme is another characteristic of fitness

   ______c. One characteristic of fitness is the compatability of type size and style with paper

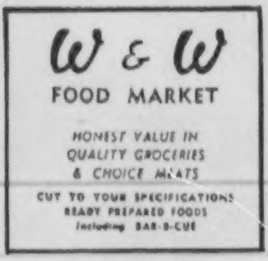
3. Match the effects of tone with their type characteristics.

______a. Restrained and formal	1. Thin and flowing type
______b. Strength, power, and masculinity	2. Type style with dignity and formality
______c. Light, airy, feminine	3. Sturdy, heavy type style

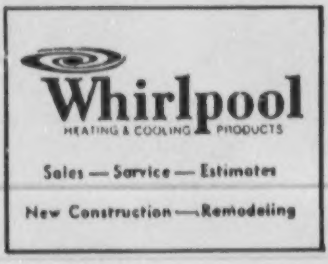
4. Identify the methods used to achieve emphasis on the illustrations below by indicating with the proper number.

   (NOTE: Answers may be used more than once and more than one method may apply to some illustrations.)

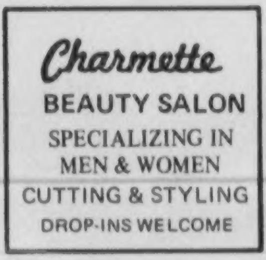
1. Large, heavy elements	3. Arrangement
2. Contrasting type faces	4. Color



W & W
FOOD MARKET
HONEST VALUE IN
QUALITY GROCERIES
& CHOICE MEATS
CUT TO YOUR SPECIFICATIONS
READY PREPARED FOODS
Including BAR-B-CUE



Whirlpool
HEATING & COOLING PRODUCTS
Sales — Service — Estimates
New Construction — Remodeling



Charmette
BEAUTY SALON
SPECIALIZING IN
MEN & WOMEN
CUTTING & STYLING
DROP-INS WELCOME

Copyright from Southwestern Bell

a.________________ b.________________ c.________________

5. Select true statements concerning the use of white space and simplicity by placing an "X" in the appropriate blanks.

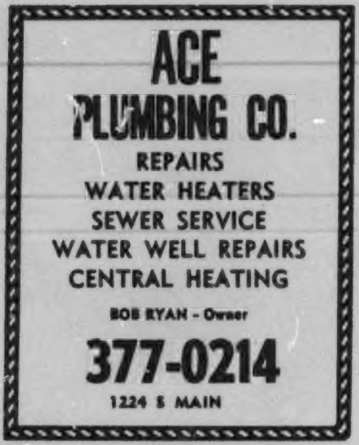
   ______a. White space is another term for negative lettering

   ______b. The amount of white space planned affects the quality and readability of material to be printed

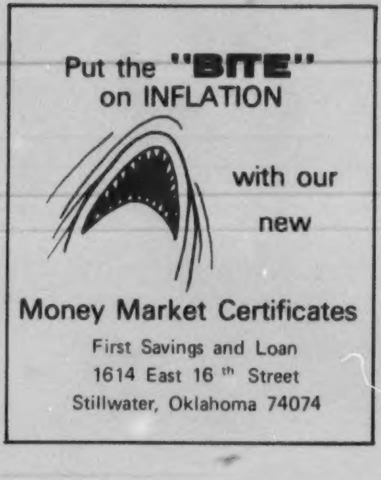
   ______c. The use of too many different type styles on a design should be avoided

   ______d. Elaborate, fancy type styles can ruin the effectiveness of a design unless used carefully and sparingly

6. Identify types of balance in the illustrations shown below by writing under each whether it is formal or informal.



ACE
PLUMBING CO.
REPAIRS
WATER HEATERS
SEWER SERVICE
WATER WELL REPAIRS
CENTRAL HEATING
BOB RYAN - Owner
377-0214
1224 S MAIN



Put the **"BITE"**
on INFLATION
with our
new
Money Market Certificates
First Savings and Loan
1614 East 16 th Street
Stillwater, Oklahoma 74074

a. ______________________ b. ____________________________

7. Select true statements concerning horizontal and vertical centers by placing an "X" in the appropriate blanks.

______a. Horizontal center is from side to side

______b. Vertical center of a page is from top to bottom

______c. The heavier the element in relation to other elements, the nearer it should be placed to the center of balance

______d. Vertical, or optical, center is a true mathematical center

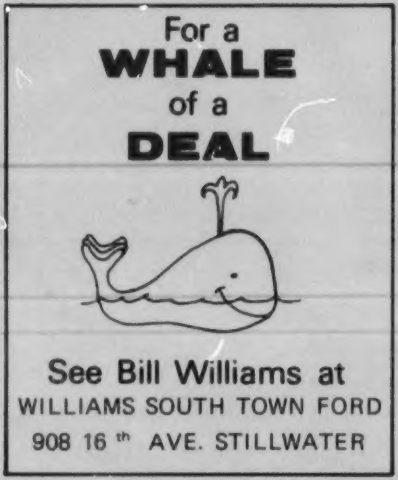
8. Select true statements concerning proportion by placing an "X" in the appropriate blanks.

______a. Page sizes are usually in a 2-to-3, width-to-height proportion

______b. Facing page inside margins are normally the same size as the outside margins

______c. Type on a page is in ideal proportion to the total page when its area is equal to the area represented by all four margins

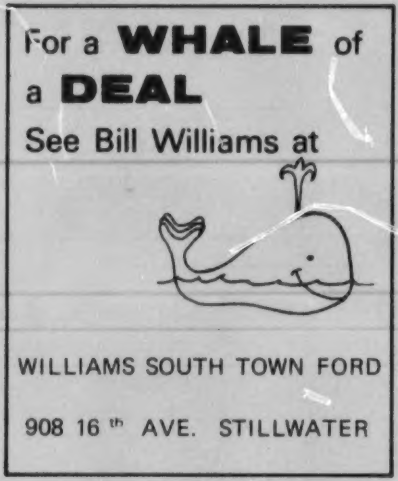
9. Identify types of good and poor shape harmony by placing an "X" under the illustrations which show good shape harmony.



For a
WHALE
of a
DEAL

See Bill Williams at
WILLIAMS SOUTH TOWN FORD
908 16th AVE. STILLWATER

a. ____________________



For a **WHALE** of
a **DEAL**
See Bill Williams at

WILLIAMS SOUTH TOWN FORD

908 16th AVE. STILLWATER

b. ____________________

Mary Jones in Labor
Union Contract Talks

c. ____________________

Budgeting seminar planned
for February 29

d. ____________________

10. Select true statements concerning methods used to achieve rhythm by placing an "X" in the appropriate blanks.

______a. Element positioning may suggest eye movement

______b. Examination of layout usually begins at optical center

______c. Exploration of layout continues in a clockwise direction, from center, to upper left, and around

11. Select true statements concerning color by placing an "X" in the appropriate blanks.

______a. Additive process primary colors are red, blue, and green

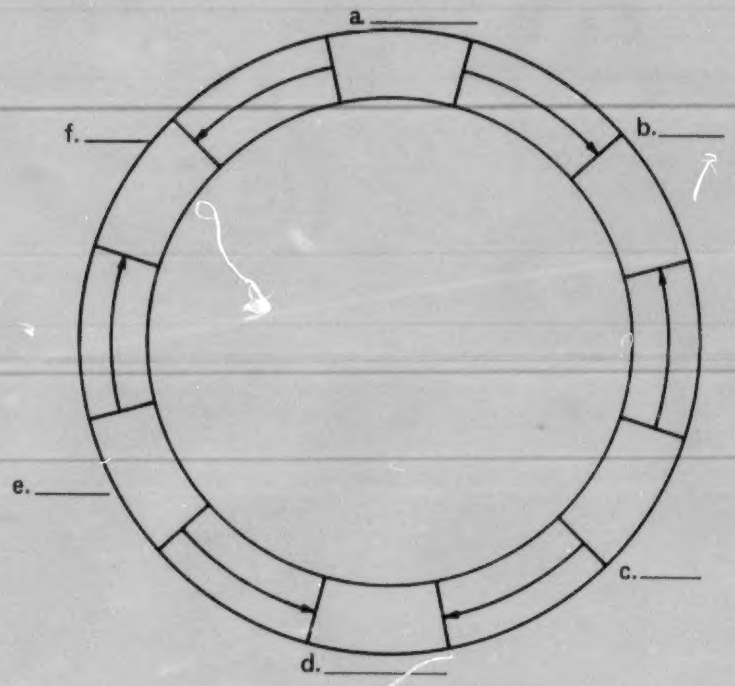
______b. A combination of any two primary colors results in a third or tertiary color

______c. The secondary colors in the subtractive process are violet, green, and orange

______d. By combining primary and secondary colors, intermediate colors can be formed

12. Complete the drawing of the printer's color wheel below by placing the proper number in the appropriate blank.

1. Red
2. Green
3. Violet
4. Orange
5. Yellow
6. Blue



13. Match the terms related to color harmony on the right with the correct definitions.

______a. Use of two colors directly opposite from each other on the color wheel

______b. Use of these will result in three color printing

______c. May be used with any color or combination of colors and result in perfect harmony

______d. Two or more tones of one color

______e. When using combinations in this method, colors should not all be of same strength or intensity

______f. Combining adjacent secondary colors of printer's color wheel will create harmony

1. Monochromatic harmonies
2. Analogous harmony
3. Complementary harmony
4. Split complements
5. Triad method
6. Black, white, and gray

14. Select true statements concerning color balance by placing an "X" in the appropriate blanks.

______a. The larger the mass of color, the nearer it should be placed to the center of the page

______b. If color is used on one side of the page it should be repeated on the other side

______c. Balance will be upset if rules, symbols, or borders of colors are used

______d. If color is used above the optical center of the page, it should be balanced by color below the center

15. Select true statements concerning color selection by placing an "X" in the appropriate blanks.

______a. Warm colors include red, yellow, and green

______b. Cool colors include violet, blue, and dark green

______c. Cool colors are better background colors than are warm colors

______d. Natural colors should be used when printing objects that are a common color

16. Match the colors on the right with their characteristics.

_____a. Should not be used for type matter as it is hard to read

_____b. A brilliant color suggesting wealth or happiness

_____c. Suggests patience or quietness

_____d. Symbolic of splendor and royalty

_____e. Small sizes or lightface type should not be reversed on this color

_____f. A color suggesting sincerity

1. Red
2. Yellow
3. Orange
4. Green
5. Violet
6. Blue

17. Distinguish between types of good and poor shape harmony.

18. Identify methods used to achieve rhythm.

19. Label magazine ads which utilize design principles.

(NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

DESIGN PRINCIPLES
UNIT III

ANSWERS TO TEST

1.

a.	8	e.	2	i.	6	m.	14
b.	4	f.	10	j.	3	n.	12
c.	5	g.	9	k.	7		
d.	11	h.	1	l.	13		

2. a, c

3.

a.	2
b.	3
c.	1

4.

a.	1 and/or 2
b.	1, 2 or 3
c.	1 or 2

5. b, c, d

6.

a.	Formal
b.	Informal

7. a, b, c

8. a, c

9. a, d

10. a, b, c

11. a, c, d

12.

a.	5	d.	3
b.	2	e.	1
c.	6	f.	4

13.

a.	3	d.	1
b.	4	e.	5
c.	6	f.	2

14. a, b, d

15. b, c, d

16.

a.	2	d.	5
b.	3	e.	1
c.	6	f.	4

17. Evaluated to the satisfaction of the instructor

18. Evaluated to the satisfaction of the instructor

19. Evaluated to the satisfaction of the instructor

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

UNIT OBJECTIVE

After completion of this unit, the student should be able to center copy on a paste-up, scale copy, and crop a photograph. The student should also be able to prepare camera copy using hand-cut ruby film, and prepare a complete and comprehensive layout. This knowledge will be evidenced by correctly performing the procedures outlined in the job sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms associated with paste-up principles and procedures with the correct definitions.
2. Distinguish between types of camera copy.
3. Match terms associated with registration methods with the correct descriptions.
4. Select true statements concerning methods of ruling copy.
5. Match terms associated with imposition with the correct descriptions.
6. Select true statements associated with centering copy on paste-up.
7. Differentiate between the proportional scale method, diagonal line method, and the formula method of scaling copy.
8. State the purposes for cropping a photograph.
9. Select true statements concerning the use of hand-cut ruby film.
10. Select true statements associated with preparing a complete layout.
11. Demonstrate the ability to:
    a. Center copy on a paste-up.
    b. Scale copy.
    c. Crop a photograph.
    d. Prepare camera copy using hand-cut ruby film.
    e. Prepare a complete and comprehensive layout.

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and job sheets.

III. Discuss unit and specific objectives.

IV. Discuss information sheet.

V. Demonstrate and discuss the procedures outlined in the job sheets.

VI. "Preparing Camera Copy for Reproduction," a filmstrip from McKnight Publishing Company (see reference under *Photo-Offset Fundamentals*), details many of the objectives in this unit.

VII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

   A. Objective sheet

   B. Information sheet

   C. Job sheets

      1. Job Sheet #1--Center Copy on a Paste-Up

      2. Job Sheet #2--Scale Copy

      3. Job Sheet #3--Crop a Photograph

      4. Job Sheet #4--Prepare Camera Copy Using Hand-Cut Ruby Film

      5. Job Sheet #5--Prepare a Complete and Comprehensive Layout

   D. Test

   E. Answers to test

II. References:

   A. Cogoli, John E. *Photo Offset Fundamentals.* Bloomington, IL. 61701: McKnight Publ. Co., 1980.

B. Silver, Gerald A. *Modern Graphic Arts Paste-Up.* Chicago, IL: American Technical Society, 1973.

C. Orr, Kenneth. *Printing Layout & Design.* Albany, NY:Delmar Publ., Inc., 1968.

D. Hawkinson, Bruce. *Graphic Arts - A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech. Div. of NM State Dept. of Ed., 1975.

E. Latimer, H. C. *Advertising Production Planning and Copy Preparation for Offset Printing.* 3rd Ed. New York 10036: Art Direction Book Co., 1974.

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

INFORMATION SHEET

I. Terms and definitions

- A. Mechanical--Assembly of image areas on a base sheet
- B. Adhesives--Wax, rubber cement, masking tape, or spray adhesive used to hold copy to base sheet
- C. Camera ready copy--Copy which is ready to be photographed
- D. Light table--Table with frosted glass top and light beneath glass
- E. Line copy--Image lines and areas of a single density
- F. Continuous tone copy--Image containing gradations or variations of tone
- G. Proportional scale--A circular slide rule used to find the percentage of reduction or enlargement of copy
- H. Reverse--A print made of copy in which the colors are the opposite of the original
- I. Surprint--An overprint in which line copy is superimposed over a halftone
- J. Ganging--To group together two or more jobs on a single press run
- K. Contact print--A print, the same size as the negative, made on a photosensitive paper
- L. Crop--To mark an illustration or photograph to indicate what portion of it is to be copied
- M. Overlay--A sheet of acetate, tracing paper, or similar material placed over a paste-up to hold copy that will appear in another color or for special instructions on the job
- N. Imposition--The arrangement of pages in the proper order on the press sheet
- O. Dropout--A term indicating that certain areas of a photo or illustration are to be left blank, or unprinted
- P. Scaling--Determination of proportional dimensions of artwork or photographs when they are reduced or enlarged
- Q. Hand-cut ruby film--A masking material which is a separate two-ply acetate film, usually ruby-red film adhered to a clear film base

INFORMATION SHEET

R. Keyline art--Artwork which is prepared for multiple color printing in which the colors overlap slightly

S. Windows--Transparent openings in film line negatives into which halftone negatives are stripped

T. Gripper--Metal fingers on a press which hold the sheet in position while it is being printed

U. Trail edge--The edge of the press sheet that is printed last

V. Bleed--The image, when printed or trimmed, is designed to run off the edge of the sheet

W. Signature--A printed sheet containing a number of pages, usually 4, 8, 16, or 32, that is folded, and bound in book form

II. Types of camera copy

A. Line copy

1. Display type
    - a. Phototypesetting machine
    - b. Free-hand lettering
    - c. Lettering machine
    - d. Clip art
    - e. Transfer lettering
2. Text or body type
    - a. "Strike-on" composition
    - b. Phototypesetting
    - c. Clip art
    - d. Reproduction proofs
3. Other line copy
    - a. Printed or pre-screened photographs
    - b. Pressure-sensitive tape (border tape)
    - c. Transfer designs, screen tints, shadings

INFORMATION SHEET

B. Halftone copy

1. Photographs

2. Paintings

3. Airbrush renderings

(NOTE: If line copy is photographed by the halftone process, the screen which is used will result in the solid image areas being screened.)

III. Registration methods

A. Register marks

1. Small designs placed on artwork to control the accurate placement of one color over another (Figure 1)

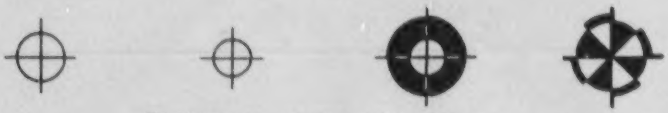


FIGURE 1 Registration Marks

2. Duplicate designs placed on overlays in alignment with copy or illustration boards (Figure 2)

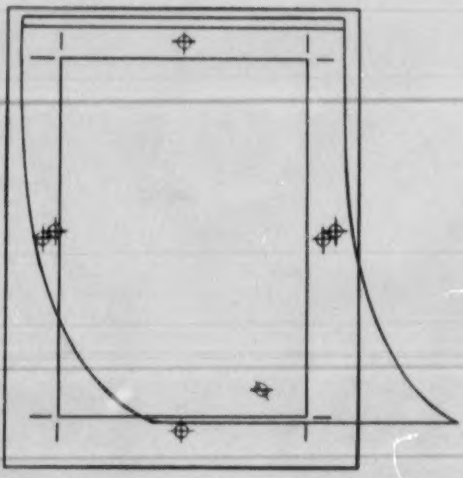


FIGURE 2 Paste-Up with an Overlay Sheet

B. Register pin system

1. Common, accurate method of registering multiple exposures

2. Pins placed on illustration board, then each overlay has pre-punched holes which are used to align images

INFORMATION SHEET

3. Pin system is often carried through camera, stripping, and platemaking operations for accurate registration

   (NOTE: Paste-ups with numerous overlays must usually be taken apart to photograph, which makes the pin register system much quicker to use and also more accurate.)

IV. Methods of ruling copy

   A. Machine composition

      1. Letterpress

      2. Phototype

      3. Strike-on

   B. Pen and ink

      1. Ruling pen lines on one sheet combined with type on another

      2. Variable line widths from hairline to 3 point

   C. Scribing lines

      1. Scribed or scratched through emulsion on film negative

      2. Scribing tools and line-up table recommended for accuracy

   D. Adhesive border tape

      1. Self-adhering tape in roll form

      2. Many different sizes and styles

V. Basic types of imposition

   A. Printed-one-side (P1S)

      1. As name implies prints one side of sheet with each pass through press

      2. Ganging P1S impositions allows more than one job to be printed at a time

         (NOTE: Sheet size, color, and quantity must be considered when ganging.)

   B. Sheet wise imposition (Figure 3)

      1. Also referred to as work and back, print and back, and front and back

INFORMATION SHEET

2. Requires two plates, one to print front side of the press sheet, and one to print back

   (NOTE: These may be multiples of two.)

3. Uses same gripper edge for both plates

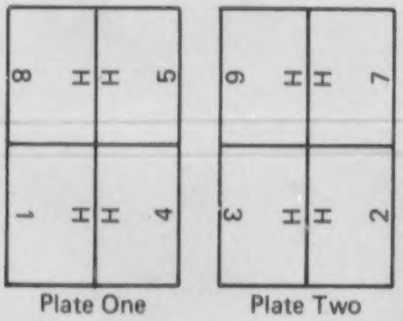

8
H
H
5
1
H
H
4
Plate One
6
H
H
7
3
H
H
2
Plate Two

FIGURE 3 A one-up, sheetwise, 8 page imposition

C. Work and turn imposition (Figure 4)

1. Also referred to as print and turn
2. All pages of signature are on one plate, outer form on one half and inner form on one half the plate
3. Two complete copies per each sheet is produced
4. Same gripper edge, both press runs

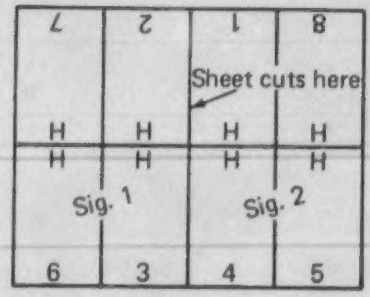

7
2
1
8
Sheet cuts here
H
H
H
H
H
H
H
H
Sig. 1
Sig. 2
6
3
4
5

FIGURE 4 A one-up, work and turn, 8 page imposition

INFORMATION SHEET

D. Work and tumble imposition (Figure 5)

1. Also referred to as work and roll, or work and flop
2. All pages on one plate
3. Uses different gripper edge both runs
4. Two complete copies, or multiples of two, per each sheet is produced

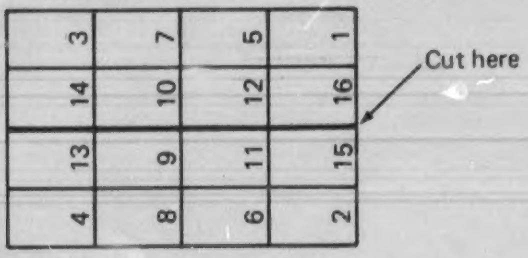


FIGURE 5 A 16 page work and tumble imposition

VI. Centering copy on paste-up

A. Horizontally

1. Center line method is fastest and most accurate
2. Measuring from edge requires two measurements for each element

(NOTE: Proportional spacing of typeset copy will not allow counting of characters and division by two, as the type characters are different sizes.)

Example: Center-line method of centering copy

Step 1--Square paste-up base sheet on table with T-square, and tape in place

Step 2--Using line gauge, find horizontal center of paste-up base, and indicate with line drawn with light blue pencil

Step 3--Using line gauge, measure each element, whether it is type, illustrations, or photos, and place a small dot at the center of each with the light blue pencil

Step 4--Paste-up copy by simply lining up center dot on each element with center line on base sheet

Step 5--Check each element with T-square for straightness as you paste them down

B. Vertically

   1. Use comprehensive layout for guide to vertically center copy

   2. Refer to unit III, Balance

VII. Scaling copy

   A. Proportional scale method (Figure 6)

      1. Measure copy

      2. Measure available space

      3. Find width of original copy on inner circle of proportional scale

      4. Line up width of original with size wanted on outer circle

      5. Read in window the reduction or enlargement percentage

      6. Repeat this operation for height

      7. Use lowest percentage figure when shooting copy if it is to be a reduction

      8. Use highest percentage figure when shooting copy if it is to be an enlargement

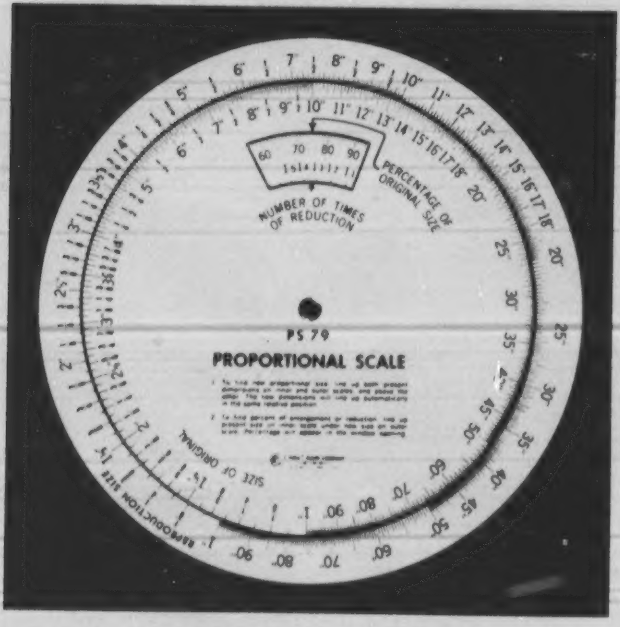

PS 79
PROPORTIONAL SCALE
PERCENTAGE OF ORIGINAL SIZE
NUMBER OF TIMES OF REDUCTION
SIZE OF ORIGINAL
REPRODUCTION SIZE
60
70
80
90

FIGURE 6 Proportional Scale

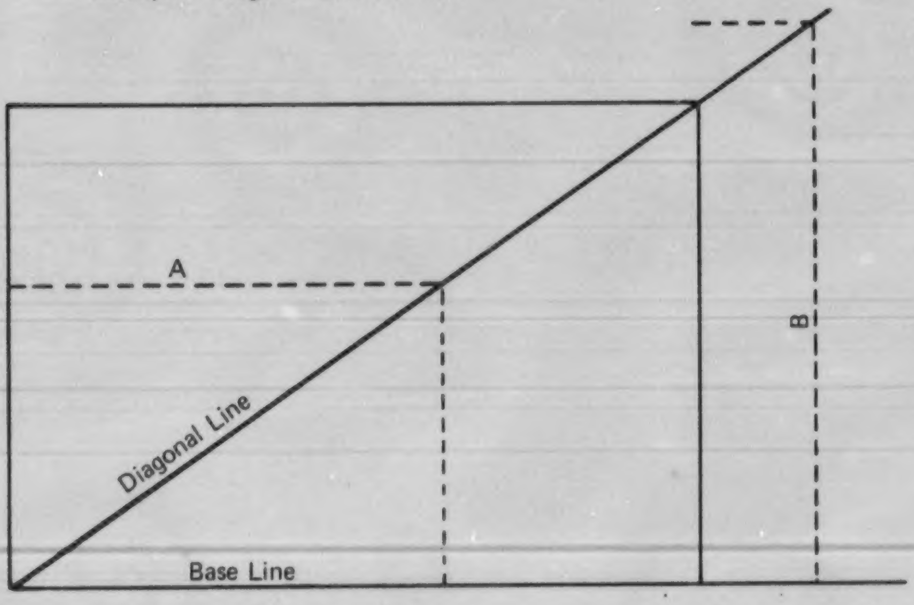
INFORMATION SHEET

B. Diagonal line method (Figure 7)

1. Draw rectangle or square on paper same size as original copy
2. Draw diagonal line through corners
3. Measure desired width of scaled copy on base line
4. From this point, extend line upward until it crosses diagonal line
5. Point of intersection will be new height of scaled copy

(NOTE: Camera copy is often referred to as an enlargement even though it is actually a reduction, i.e., a .75 enlargement would really be a 3/4 original size copy.)

Example: Diagonal Line Method



Original Copy - 2¾"h x 4"w
Line A shows reduction in height to 1¾", and shows new width.
Line B shows enlargement of width to 4¾", and shows new height.

FIGURE 7

INFORMATION SHEET

C. Formula method

1. Formula as follows:

$\frac{W}{H} = \frac{w}{h}$ in which:

W = original width
w = width of enlargement or reduction
H = original height
h = height of enlargement or reduction

2. Determine size of copy

Example: A space 5" x 7 1/2" is available for an illustration, and the artist decides to make the original 6" wide. The artist now needs to know how high the illustration should be.

Step 1. $\frac{W}{H} = \frac{w}{h}$

substituting

Step 2. $\frac{5}{7\,1/2} = \frac{6}{h}$

cross multiplying

Step 3. $5h = 6 \times 7\,1/2$

solving

Step 4. $h = \frac{6 \times 7\,1/2}{5}$

or

Step 5. $h = \frac{45}{5}$

or

Step 6. $h = 9$

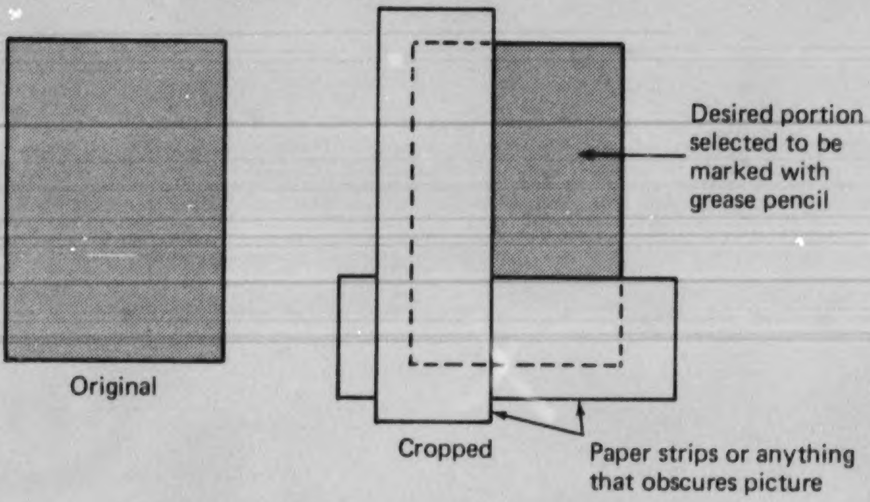
VIII. Purposes for cropping a photograph

A. Eliminates unnecessary portions of picture

INFORMATION SHEET

B. Improves or emphasizes desired portion of picture

Example: Cropping a photograph


Original
Cropped
Desired portion selected to be marked with grease pencil
Paper strips or anything that obscures picture

Step 1--Place something, such as strips of paper, around edges of picture and move until only that portion desired shows

Step 2--Using T-square and marking pencil, mark two sets of horizontal lines in the side margins of the photo, showing desired area

Step 3--Mark two sets of vertical lines in the top and bottom margins of photo, showing desired area

Or: Step 2 and 3 may be eliminated by taping a tissue overlay over photo and marking desired position of photo on overlay

IX. Use of hand-cut ruby film

A. Dropouts (Figure 8)

1. Eliminates unwanted portions of photo or illustration without damaging original copy

2. Accurate, detailed drop-outs can be achieved

3. Original artwork is keyed for colors and includes register marks

4. Ruby film is taped in register over the artwork

   (NOTE: Film negative can be used instead of original copy when preparing overlay of ruby film.)

5. Top layer of ruby film is cut with stripping knife and area to be printed is peeled away from clear film base

INFORMATION SHEET

6. Ruby film can be used as mask and stripped up on same flat with film negative

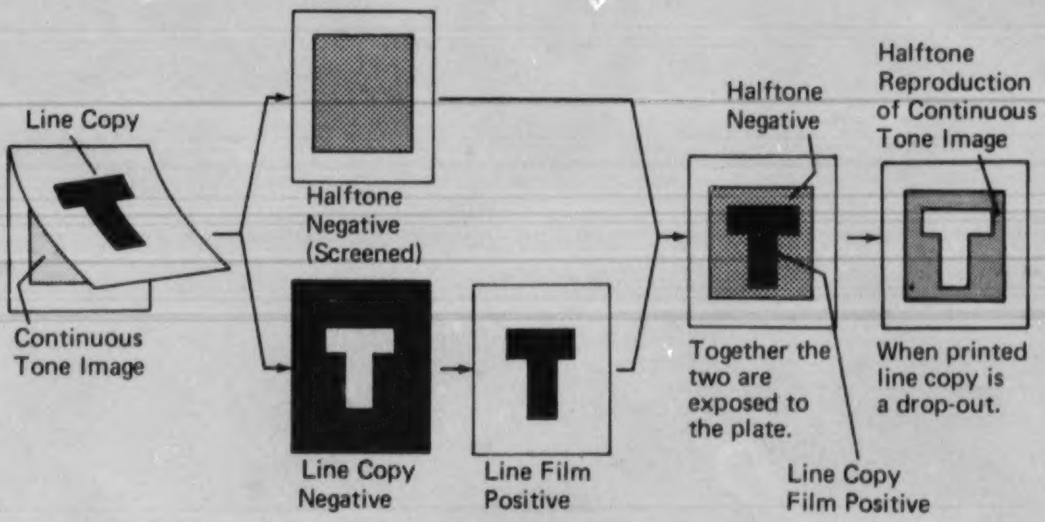

Line Copy
Continuous Tone Image
Halftone Negative (Screened)
Line Copy Negative
Line Film Positive
Halftone Negative
Together the two are exposed to the plate.
Line Copy Film Positive
Halftone Reproduction of Continuous Tone Image
When printed line copy is a drop-out.

FIGURE 8 Schematic of a Dropout

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B. Overlays-keyline art (Figure 9)

1. Accurate method of preparing camera copy for separate colors or tints, without damage to original copy
2. Original artwork is keyed for colors or tints and includes register marks
3. Ruby film is taped in register over the artwork
4. Top layer of ruby film is cut with stripping knife and all areas except those to be printed are peeled away from clear film base
5. A ruby film overlay is prepared for each color or screen tint area to be printed

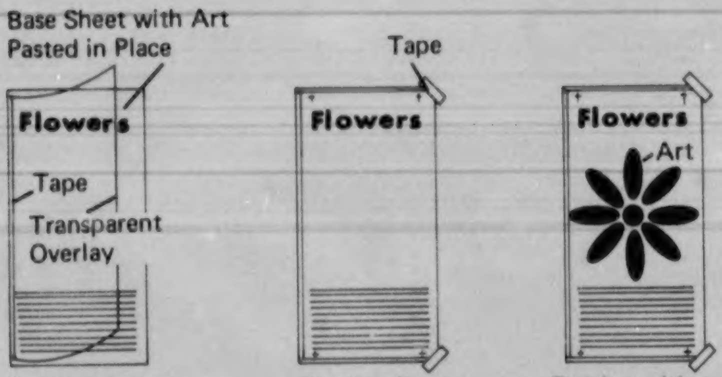
INFORMATION SHEET

6. When photographed, ruby film material reproduces as black, resulting in clear area on film negative

   (NOTE: When preparing camera copy for keyline art, the overlays for separate colors should overlap slightly, which will eliminate any gaps between colors.)

FIGURE 9

Overlay Method



Overlay taped to edge of base sheet.

Overlay flat to base sheet.

Overlay with art pasted in place.

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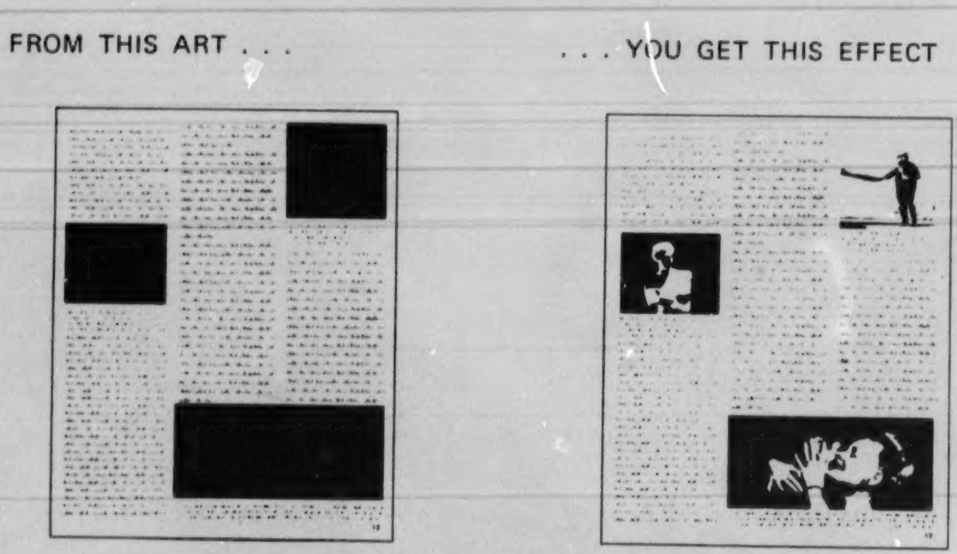
C. Windows (Figure 10)

1. Use of ruby film is an accurate method of preparing windows for halftone negatives, particularly when line and halftone is very close together
2. Preparation of multiple windows in a row is more accurate and neater with ruby film than with the use of paste-up windows
3. Guidelines are placed on illustration board showing location of photographs
4. Ruby film, which is placed over illustration board, is transparent, allowing guide lines to be followed when cutting windows with knife
5. Ruby film material is then peeled away from all areas except where photographs will appear
6. Line copy is then pasted up on illustration board, and both windows and line copy can be photograhed in one exposure

7. Halftones of the photographs are then combined with the line negative on one flat

   (NOTE: Separate flats are often necessary when line copy and photographs are very close together. In this instance, the halftones are stripped into the windows on one flat, while the line copy is stripped onto another flat. An exposure of each flat to the same plate is then made.)



FROM THIS ART . . .

. . . YOU GET THIS EFFECT

FIGURE 10 Window Method

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X. Preparing a complete layout

   A. Thumbnails

      1. Crude, quick sketches

      2. Selection of one design

   B. Roughs

      1. Full size layout

      2. Indicate type size, style margins, and illustrations to be used

INFORMATION SHEET

C. Comprehensive

1. As similar to finished job as possible
2. Mark-up comprehensive
3. Key all photos and illustrations
4. Crop or scale photos or illustrations

(NOTE: Review Unit I of Section B for information on layouts.)

D. Paste-up (mechanical)

1. Place base board square on the table
2. Mark base board with trim lines and guide lines
3. Gather elements and place in approximate position
4. Trim elements to 1/8" of image
5. Wax all elements before paste up, but if using rubber cement, handle individually
6. Work from top of layout, downward, pasting and squaring all elements
7. Check layout against comprehensive layout
8. Clean up paste-up
9. Check all elements for proper positioning and squareness
10. Cover finished paste-up with a protective tissue overlay

(CAUTION: Careful handling and use of the final paste-up should be observed.)

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

JOB SHEET #1--CENTER COPY ON A PASTE-UP

I. Tools and materials

- A. T-square
- B. Triangle
- C. Ruler or line gauge
- D. Light blue pencil
- E. Copy furnished by instructor
- F. Illustration board or suitable material for base
- G. Masking or drafting tape
- H. Rubber cement or adhesive wax

II. Procedure

- A. Horizontal centering
    1. Square paste-up base sheet on table with T-square and tape in place
    2. Using line gauge, find horizontal center of paste-up base, and indicate with dotted line drawn with light blue pencil
    3. Using line gauge, measure each element, whether it is type, illustrations, or photos and place a small dot at the center of each with the light blue pencil
    4. Paste-up copy by simply lining up center dot on copy with center line on base sheet
    5. Check each element with T-square for straightness as you paste them down
    6. Turn in for evaluation
- B. Vertical Centering
    1. Paste-up copy with approximate equal spacing between lines of type as there is no comprehensive layout to use for a guide
    2. Review Unit III, Balance, for guide to vertical centering

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

JOB SHEET #2--SCALE COPY

I. Tools and materials

- A. T-square
- B. Triangle
- C. Proportional scale (wheel)
- D. Ruler or line gauge
- E. Pencil or pen
- F. Illustration or halftone copy
- G. Several sheets of blank paper
- H. Masking or drafting tape

II. Procedure

(NOTE: Scaling of copy will be accomplished using three different methods.)

A. Proportional scale method

1. Using ruler or line gauge, carefully measure copy for both width and height
2. Measure space available on layout for copy
3. Find the width of the copy to be scaled on the inner circle of the proportional scale
4. Line up the original size with the desired size on the outer circle of the proportional scale
5. Read, in the window of the proportional scale, the percentage of the desired reduction or enlargement
6. Leave the scale set on this percentage and read on the outside circle what the reduced or enlarged height will be

JOB SHEET #2

7. Write the percentage and the desired size on a sheet of paper, attach to the copy, and turn in for evaluation

   (NOTE: This job may be reproduced at new size by the instructor as a demonstration, or may be retained as a project for students completing darkroom instructions.)

B. Diagonal line method

1. Using T-square, align sheet of paper straight on table and tape in place
2. Using the T-square, triangle, and line gauge, draw outline form the same size as copy you are scaling
3. Draw a diagonal line from the lower left corner through the upper right corner and continue the line across the page
4. Measure the desired width across the bottom of the first rectangle, and from that point draw a vertical line until it intersects the diagonal line
5. Measure the point of intersection; this will be the new height of scaled copy
6. Write the desired size beside the diagonal line drawing and turn in to be evaluated

   (NOTE: This job may be reproduced at new size by the instructor as a demonstration, or may be retained as a project for students completing darkroom instructions.)

C. Formula method

1. Using ruler or line gauge, carefully measure copy for both width and height
2. Measure space available on layout for copy
3. Using the formula $\frac{W}{H} = \frac{w}{h}$, and substituting the width of copy, determine the new width and height of copy for layout

   (NOTE: This job may be reproduced at new size by the instructor as a demonstration, or may be retained as a project for students completing darkroom instructions.)

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

JOB SHEET #3--CROP A PHOTOGRAPH

I. Tools and materials

- A. China marking pencil
- B. Ruler or line gauge
- C. T-square
- D. Triangle
- E. Sheet of translucent tracing paper
- F. Four strips of paper approximately 3" x 8"
- G. Masking or drafting tape
- H. Photograph furnished by instructor

II. Procedure

(NOTE: Cropping of a photograph will be accomplished using two different methods.)

A. Marking margins

1. Using strips of paper to cover portions of photo, select portion of photo to be reproduced
2. Using the T-square and marking pencil, mark two sets of horizontal lines in the side margins of the photo, showing the desired area
3. Mark two sets of vertical lines in the top and bottom margins of the photo showing the desired area
4. Turn in for evaluation by instructor

   (NOTE: Crop marks may be easily removed for future recropping.)

B. Tracing paper overlay method

1. Tape the tracing paper over the photograph on top edge only
2. Raise tracing paper overlay from photo and using strips of paper, select portion of photo that is desired

JOB SHEET #3

3. Replacing tracing paper overlay, lightly mark on overlay that portion of photo to be reproduced

   (NOTE: Be sure to mark on overlay, not on picture itself, and be careful to mark lightly, or you will make indentations on photo that may show up if used again.)

4. Turn in for evaluation by instructor

   (NOTE: This job may be photographed by the instructor as a demonstration, or may be retained as a project for students completing darkroom instructions.)

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

JOB SHEET #4--PREPARE CAMERA COPY USING HAND-CUT RUBY FILM

I. Tools and materials

   A. Stripping knife

   B. Masking or drafting tape

   C. Ruby film material

   D. Illustrations or photographs furnished by instructor

   E. Scissors

   F. Trimboard

   G. T-square

   H. Triangle

   I. Illustration board

   J. Light blue pencil

   K. Layout table

II. Procedure

(NOTE: Hand-cut ruby film will be used in the following job applications: dropouts, overlays-keyline art, and windows.)

   A. Dropouts

      1. Cut, on trimboard, a piece of ruby film to the same size as photograph or illustration to be used

      2. Place ruby film, clear base side down, over photo and tape in place along top edge

      3. Using stripping knife, carefully outline area that is to be dropped out

      (CAUTION: Use extreme care to avoid cutting through ruby film base and damaging photo or illustration. A few practice cuts on ruby film scraps would be helpful in avoiding this type of mistake.)

      4. Carefully peel away the portion of the ruby film from the area of the photo that will be printed

JOB SHEET #4

5. Check work for accuracy, then turn in for evaluation

   (NOTE: This job may be completed by the instructor as a demonstration, or may be retained as a project for students completing darkroom, stripping, and platemaking instructions.)

B. Overlays-keyline art

1. Cut, on trimboard, a piece of ruby film to the same size as photo or illustration to be used
2. Place ruby film, clear base side down, over photo and tape in place along top edge

   (NOTE: When preparing keyline art, a slight overlap of colors is desired to avoid any gap between colors.)

3. Using stripping knife, carefully outline area that is to be screened or printed in separate color

   (CAUTION: Use extreme care to avoid cutting through ruby film base and damaging photo or illustration. Again, a few practice cuts on ruby film scraps would be helpful in avoiding this type of mistake.)

4. Peel away all areas of ruby film except that which is to be a separate color
5. Prepare a separate ruby film overlay for each area or color desired
6. Check work for accuracy, then turn in for evaluation

   (NOTE: This job may be completed by the instructor as a demonstration, or may be retained as a project for students completing darkroom, stripping, and platemaking instruction.)

C. Windows

1. Using T-square, place illustration board on layout table and tape in place
2. Mark, with light blue pencil, location of photographs on the illustration board
3. Cut, on trimboard, a piece of ruby film to the same size as illustration board
4. Place ruby film, clear base side down, over illustration board and tape in place along top edge

JOB SHEET #4

5. Using T-square, triangle, and stripping knife, carefully cut locations of photographs in the ruby film

   (CAUTION: Again, use extreme care to avoid cutting through film base. Practice cuts are again recommended.)

6. Peel away all areas of ruby film except that which will be printed as photographs

7. Check all "windows" on ruby film for squareness and proper location

   (NOTE: Red lithographers tape may be used as patches for small mis-cuts or slips if it is done neatly and accurately.)

8. Turn in for evaluation

   (NOTE: This job may be completed by the instructor as a demonstration, or may be retained as a project for students completing darkroom, stripping, and platemaking instructions.)

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

JOB SHEET #5--PREPARE A COMPLETE AND COMPREHENSIVE LAYOUT

(NOTE: The following tools, materials, and procedures will be used to prepare layouts for letterhead, newspaper ads, brochures, forms, and book pages.)

I. Tools and materials

  A. T-square

  B. Triangle

  C. Proportional scale

  D. Ruler or line gauge

  E. Pencil or pen

  F. Light blue pencil

  G. Adhesive waxer or rubber cement

  H. Scissors

  I. Stripping knife

  J. Several sheets of blank paper

  K. Masking or drafting tape

  L. Copy furnished by instructor

  M. Illustrations or photos furnished bv instructor

  N. Illustration board or base for paste-up

II. Procedure

  A. Thumbnails

    1. Draw six crude, quick sketches of possible ways to design job to be printed

    2. Select the one design most appropriate

  B. Roughs

    1. Using the selected thumbnail sketch as a guide, prepare a full-size rough layout

    2. Give indication on rough of type size, style, etc., to be used

JOB SHEET #5

C. Comprehensive

1. Prepare a comprehensive layout, using the rough as a guide
2. Mark-up comprehensive
   a. Key all illustrations or photos
   b. Crop or scale illustrations or photos if needed

   (NOTE: Refer to Unit I of this section to review information on layouts.)

D. Paste-up (mechanical)

1. Using the T-square, tape the base board for the paste-up to the table
2. Mark base board with trim size and any guide lines necessary
3. Gather all elements (type, photos, illustrations, etc.) and place in approximate position on layout
4. Trim all elements down to within 1/8" of image
5. Wax all elements on back side only

   (NOTE: If using rubber cement, cement and place each element individually.)

6. Working from the top of layout downward, place each element in position indicated on comprehensive
7. Use T-square on each element as you place it to make sure it is straight and centered
8. Check finished paste-up with the comprehensive, making sure it is correct and complete
9. Clean up mechanical, removing any unnecessary marks
10. Cover the finished paste-up with a protective tissue overlay
11. Place name on back of paste-up and turn in for evaluation

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

NAME ______________________

TEST

1. Match the terms on the right with the correct definitions.

_____a. Assembly of image areas on a base sheet

_____b. Wax, rubber cement, masking tape, or spray adhesive used to hold copy to base sheet

_____c. Copy which is ready to be photographed

_____d. Table with frosted glass top and light beneath glass

_____e. Image lines and areas of a single density

_____f. Image containing gradations or variations of tone

_____g. A circular slide rule used to find the percentage of reduction or enlargement of copy

_____h. A print made of copy in which the colors are the opposite of the original

_____i. An overprint in which line copy is superimposed over a halftone

_____j. To group together two or more jobs on a single press run

_____k. A print, the same size as the negative, made on a photo-sensitive paper

_____l. To mark an illustration or photograph to indicate what portion of it is to be copied

_____m. A sheet of acetate, tracing paper, or similar material placed over a paste-up to hold copy that will appear in another color or for special instructions on the job

_____n. The arrangement of pages in the proper order on the press sheet

1. Proportional scale
2. Crop
3. Signature
4. Surprint
5. Trail edge
6. Light table
7. Ganging
8. Overlay
9. Mechanical
10. Line copy
11. Contact print
12. Camera ready copy
13. Scaling
14. Adhesives

_____o. A term indicating that certain areas of a photo or illustration are to be left blank, or unprinted

_____p. Determination of proportional dimensions of artwork or photographs when they are reduced or enlarged

_____q. Metal fingers on a press which hold the sheet in position while it is being printed

_____r. The edge of the press sheet that is printed last

_____s. The image, when printed or trimmed, is designed to run off the edge of the sheet

_____t. A printed sheet containing a number of pages, usually 4, 8, 16, or 32, that is folded, and bound in book form

_____u. A masking material which is a separate two-ply acetate film, usually ruby-red film adhered to a clear film base

_____v. Artwork which is prepared for multiple color printing in which the colors overlap slightly

_____w. Transparent openings in film line negatives into which halftone negatives are stripped

15. Imposition
16. Gripper
17. Continuous tone copy
18. Bleed
19. Reverse
20. Dropout
21. Keyline art
22. Windows
23. Hand-cut ruby film

2. Distinguish between types of camera copy by placing an "L" next to types of line copy and an "H" next to types of halftone copy.

(NOTE: Answers may be used more than once.)

_____a. Printed or pre-screened photographs

_____b. Photographs

_____c. Paintings

_____d. "Strike-on" composition

_____e. Transfer lettering

_____f. Free-hand lettering

_____g. Clip art

_____h. Pressure-sensitive tape

_____i. Airbrush renderings

3. Match the terms associated with registration methods on the right with correct descriptions.

(NOTE: Answers may be used more than once.)

______ a. Common, accurate method or registering multiple exposures

______ b. Small designs placed on artwork

______ c. Duplicate designs placed on overlays

______ d. Pins placed on illustration board

1. Register marks
2. Register pin system

4. Select true statements concerning methods of ruling copy by placing an "X" in the appropriate blanks.

______ a. Ruling of copy may be accomplished by letterpress

______ b. Lines may be scribed on base side of negative

______ c. Self-adhering border tape may be purchased for ruling

______ d. Variable line widths up to 10 points may be accomplished with the ruling pen

5. Match the terms associated with imposition on the right with the correct descriptions.

(NOTE: Answers may be used more than once and two terms may apply to one description.)

______ a. Also referred to as print and turn

______ b. Same gripper edge, both plate runs

______ c. Also referred to as work and back

______ d. Uses different gripper edge, both runs

______ e. Prints one side of sheet with each pass through press

______ f. Requires two plates, one to print front side of press sheet, and one to print back

1. Printed-one-side
2. Sheet wise
3. Work and turn
4. Work and tumble

6. Select true statements associated with centering copy on paste-up by placing an "X" in the appropriate blanks.

______ a. Use comprehensive layout for guide to vertically center copy

______ b. The center line on the base sheet can be drawn anywhere

______ c. Center line method is fastest and most accurate

7. Differentiate between the proportional scale method, the diagonal line method, and the formula method of scaling copy by placing a "P" next to the descriptions of the proportional scale method, a "D" next to the diagonal line methods, and an "F" next to formula methods.

______ a. This method involves lining up width of original with size wanted on an outer circle

______ b. This method uses the equation of $\frac{W}{H} = \frac{w}{h}$

______ c. The measure of desired width of scale copy is done on the base line in this method

______ d. The point of intersection will be the new height of scaled copy in this method

8. State the purposes for cropping a photograph.

a. ____

b. ____

9. Select true statements concerning the use of hand-cut ruby film by placing an "X" in the appropriate blanks.

______ a. Ruby film can be used as mask and stripped up on same flat with film negative

______ b. Use of ruby film is an inaccurate method of preparing windows for halftone negatives

______ c. Ruby film eliminates unwanted portions of a photo or illustration without damaging original copy

______ d. When photographed, ruby film material reproduces as black, resulting in clear area on film negative

10. Select true statements associated with preparing a complete layout by placing an "X" in the appropriate blanks.

______ a. Always trim elements to 3/4" of image

______ b. Work from top of layout, downward, pasting and squaring

______ c. Key all photos and illustrations

______ d. Check paste-up layout against rough layout

______ e. Finished paste-up should be covered with a protective tissue overlay

11. Demonstrate the ability to:

    a. Center copy on a paste-up

    b. Scale copy

    c. Crop a photograph

    d. Prepare camera copy using hand-cut ruby film

    e. Prepare a complete and comprehensive layout

    (NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

PASTE-UP PRINCIPLES AND PROCEDURES
UNIT IV

ANSWERS TO TEST

1.

a.	9	f.	17	k.	11	p.	13	u.	23
b.	14	g.	1	l.	2	q.	16	v.	21
c.	12	h.	19	m.	8	r.	5	w.	22
d.	6	i.	4	n.	15	s.	18		
e.	10	j.	7	o.	20	t.	3		

2.

a.	L	f.	L
b.	H	g.	L
c.	H	h.	L
d.	L	i.	H
e.	L		

3.

a.	2
b.	1
c.	1
d.	2

4. a, c

5.

a.	3	d.	4
b.	2 or 3	e.	1
c.	2	f.	2

6. a, c

7.

a.	P
b.	F
c.	D
d.	D

8.
   a. Eliminates unnecessary portions of picture
   b. Improves or emphasizes desired portion of picture

9. a, c, d

10. b, c, e

11. Performance skills evaluated to the satisfaction of the instructor

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

UNIT OBJECTIVE

After completion of this unit, the student should be able to match terms related to the overview and format of composition with the correct definitions and select true statements concerning first and second generation phototype and phototext typesetters. The student should also be able to identify formats of type composition. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment sheet and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit the student should be able to:

1. Match terms related to the overview and format of composition with the correct definitions.
2. Match kinds of type with the correct descriptions.
3. Distinguish between characteristics of strike-on and phototypesetting machines.
4. Select true statements concerning first generation phototypesetters.
5. Select true statements concerning second generation phototext typesetters.
6. Match third and fourth generation phototext typesetters with the correct descriptions.
7. Identify formats of type composition.

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and assignment sheets.

III. Discuss unit and specific objectives.

IV. Discuss information and assignment sheets.

V. A field trip to a newspaper or commercial shop which has some of the typesetting equipment referred to in this unit would be very helpful to the student.

VI. A bulletin board display of type set on this equipment would also be helpful.

VII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

  A. Objective sheet

  B. Information sheet

  C. Assignment Sheet #1--Identify Formats of Type Composition

  D. Test

  E. Answers to test

II. References:

  A. Cogoli, John E. *Photo Offset Fundamentals.* Bloomington, IL 61761: McKnight Publishing Company, 1980.

  B. Hawkinson, Bruce. *Graphic Arts - A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech Division of New Mexico State Department of Education, 1975.

  C. Typographic Council. *An Introduction to Phototypesetting.* Pittsburgh, PA 15213: Graphic Arts Technical Foundation, 1974.

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

INFORMATION SHEET

I. Terms and definitions:

   A. Scrolling--Passing composed lines of type across the video display for examination

   B. Justify--To make a series of lines of type the same length

   C. Display type--Type 14 points or larger in size

   D. Text type--Type 12 points or smaller in size

   E. Format--The style in which copy is typeset, such as justified, centered, or flush right

   F. Hyphenation--To connect or separate words with a hyphen

   G. Laser--Light amplification by stimulated emission of radiation

   H. Phototext--A photomechanical process for composing text type on film or paper

   I. Cathode-ray tube--A vacuum tube in which cathode rays using the form of a slender beam are projected on a flourescent screen and produce a luminous dot

   J. OCR (optical character recognition)--A system that reads typed manuscripts and produces a tape from which type can be set

   (NOTE: Tape can be fed directly into phototypesetter.)

   K. Perforated tape--A roll of narrow paper with holes arranged so that machines can read it and set type from its instructions

   L. Perforator--A keyboard machine that punches or perforates tape to be used for typesetting

   M. Floppy disc--A magnetic memory storage for typesetting computers, used in same way as magnetic tape or perforated tape

   N. Word processing--A system for the production of typewritten documents with automated typing and text-editing equipment

II. Kinds of type

   A. Hot type

      1. Foundry--Type is cast, or produced, by a type foundry in individual oblong units, and sold in fonts

INFORMATION SHEET

2. Monotype--Similar to foundry type, being individual pieces of type, but is cast in the shop as needed
3. Linotype-Intertype--Casts solid pieces of metal, called slugs, with the characters for an entire line in relief on one narrow edge
4. Ludlow--Produces a solid line of type similar to linotype, but is hand set and used primarily for display type
5. Wood type--Set by hand, and used in the same manner as foundry type, generally 72 points or larger

B. Cold type

1. Hand lettering and art
2. Ruling pen--Generally used for ruling lines
3. Clip art--Variety of line and/or halftone illustrations purchased in book form
4. Preprinted type--Tab form, self-adhesive, and transfer type, used for borders and decorations
5. Existing printed work--Often used as camera copy
6. "Strike-on"--Impact composition such as typewriters
7. Phototypesetting--Type images exposed on photographic paper

III. Characteristics of strike-on and phototypesetting machines

A. Strike-on

1. Typewriters
    a. Some designed for type composition
    b. Electric, with one-time plastic or carbon ribbons, which work best for copy to be reproduced
    c. Most require manual justification
2. Composition machines
    a. Automatic justification, centering, and dot leaders possible on electronic models with memory
    b. Different type sizes up to 12 points, with many styles available
    c. Ruling attachments available to produce ruled forms

INFORMATION SHEET

B. Phototypesetting

   1. Display

      a. Wide range of sizes and styles of type 14 points and larger

      b. Manual or keyboard controlled

      c. Photoprint produced, some automatically, ready for paste-up

      d. Some machines utilize contact printing principles, and make only one size letter from each image carrier

      e. Some machines utilize projection printing principles, and make different size letters from each font or image carrier

   2. Text

      a. Wide range of styles and sizes of type 12 points or smaller

      b. Photoprint produced, some automatically, ready for paste-up

IV. First generation phototypesetters

A. Modifications of existing hot-type casting machines

   1. Converted to set type on film or on phototype paper

   2. Mechanical in operation

   3. Utilized the same recirculating matrix as the Linotype metal line-casting machine (Figures 1 and 2)

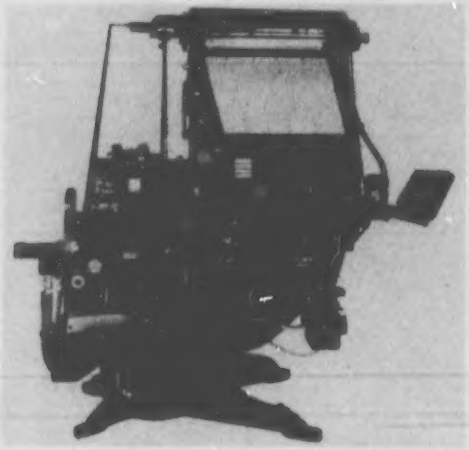


FIGURE 1 Linotype Metal Line-Casting Machine
Courtesy Mergenthaler Linotype Company

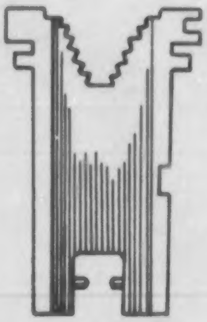


FIGURE 2 Matrix for Linotype

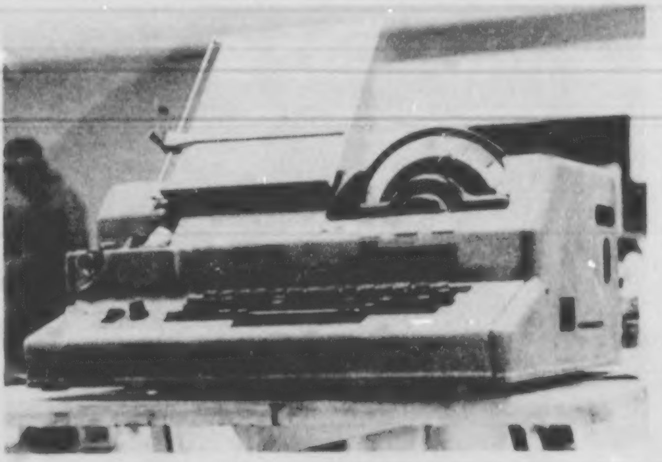
INFORMATION SHEET

B. Machines designed as phototypesetters

1. Monophoto typesetter was developed to set type photographically
2. Monotype keyboard also developed for punching tape
3. The tape-operated typesetter utilized a revolving disc as an image carrier (Figure 3)

FIGURE 3

Tape-operated Typesetter



V. Second generation phototext typesetters

A. Direct entry

1. Operated from self-contained keyboard
2. Output speed limited by speed of operator
3. Visual character display
4. As each character is keyboarded, it is automatically entered in the phototypesetter mini-computer and memory section

B. Separate entry

1. No built-in keyboard
2. Part of a system where the machine is operated from punched paper tape, magnetic tape, or by electronic signal
3. Separate keyboard units produce input for system
4. Fast enough to accept output from several keyboard units
5. Computer-controlled justification and hyphenation

INFORMATION SHEET

VI. Third and fourth generation phototext typesetter

- A. Third generation
    1. Cathode-ray tube (CRT)
    2. Commanded by tape or electronic signal
    3. Elimination of moving font carrier results in faster composition
    4. 4000 or more type characters per second
- B. Fourth generation
    1. Laser phototypesetters
    2. Input is from paper, magnetic tape, or electronic signal

VII. Formats of type composition

- A. Centered (Figure 4)
    1. Also called "quad center"
    2. Equal spacing at both ends of each line

LAMPS
for photographic equipment
send for our complete list of all ANSI
coded lamps manufactured in the U. S. for
audio/visual, photo, & studio use
FAST SERVICE – LIBERAL DISCOUNTING
NATIONWIDE PHOTOLAMP SUPPLY CO.

FIGURE 4 Centered

- B. Flush left (Figure 5)
    1. Also known as "ragged right" or "quad left"
    2. All lines begin flush left and are ragged on right end

And, whether you choose condenser illumination, diffusion or a powerful dichroic color head, you'll find that the illumination is incredibly even, corner-to-corner. The reason's the same: extra care in design and

FIGURE 5 Flush Left

INFORMATION SHEET

C. Flush right (Figure 6)

1. Also known as "ragged left" or "quad right"
2. All lines are flush at right end
3. Lines begin randomly on left

> When you need lots of light for lots of depth of field, Broncolor's got it. The incredibly efficient Broncolor 606 gets a guide number for 945 out of 6,000 watt seconds, for an aperture of f/157 at 6 feet with ASA 100 film (f/129 + ½ stop), with 55° standard reflector. The comparable figure for the 1500 watt second Broncolor 404 is a healthy f/79!

FIGURE 6 Flush Right

D. Justified (Figure 7)

1. All lines are even, or flush, at both ends
2. Indention may, or may not, be used for first line of paragraph

> The third area of potential stress touched on in these articles revolves around the delegation of tasks, as discussed by Donald Haws. Although few managers doubt the logic of the ''anti-instinctive'' aspect of the managerial role, the difficulty arises when the necessity occurs to *do* it. It is then that the dual components of any delegated task become evident: a) the *responsibility* of the

FIGURE 7 Justified

E. Run-around (Figure 8)

1. Lines are shortened where needed to go around an illustration or photo

INFORMATION SHEET

2. May be part of another format

Within this framework, we consider the question confronting the moving image producer at the start of the decade of the Eighties, to wit: "Shall we use film or video?"

A decade ago, the answer was more or less clear-cut. Video was the province of broadcasters and amateurs. Film was the only medium for the information producer who wanted to work in the real world, rather than in the "artificial" confines of a studio, who wanted maximum flexibility and creative control in shooting and editing, and who would settle for nothing less than a first quality finished product at a cost effective price.

FIGURE 8 Runaround

F. Tabular (Figure 9)

1. Also known as "multiple justification"
2. Figures or letters are in columns across page
3. May, or may not, include dot leaders

	Percent Reporting Expenditure	Average Expenditure	Total Expenditure
Purchased Equipment, Materials or Services	96.3%	$30,728	$1,250,470,600
Equipment			
Purchasing	84.0	12,460	442,320,500
Rental	91.1	1,435	11,583,100

FIGURE 9 Tabular

G. Ruled form (Figure 10)

1. Cross-ruled part of form may be done separately
2. May be part of another format

FOLD PLATE	W S	
	DEPTH	WIDTH
A	12¾"	14"
B	10	14
C	8½	10
D	8½	10
E	8½	10
F	8½	10

FIGURE 10 Ruled Form

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

ASSIGNMENT SHEET #1--IDENTIFY FORMATS OF TYPE COMPOSITION

Directions: Collect samples of different formats of type composition, paste up on paper and label as to format. Find at least one of each of the following:

1. Centered
2. Ragged right (flush left)
3. Ragged left (flush right)
4. Justified
5. Run-around
6. Tabulator
7. Ruled form

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

NAME ______________________________

TEST

1. Match the terms on the right with the correct definitions.

______a. Passing composed lines of type across the video display for examination

______b. To make a series of lines of type the same length

______c. Type 14 points or larger in size

______d. Type 12 points or smaller in size

______e. The style in which copy is typeset, such as justified, centered, or flush right

______f. To connect or separate words with a hyphen

______g. Light amplification by stimulated emission of radiation

______h. A photomechanical process for composing text type on film or paper

______i. A vacuum tube in which cathode rays using the form of a slender beam are projected on a flourescent screen and produce a luminous dot

______j. A system that reads typed manuscripts and produces a tape from which type can be set

______k. A roll of narrow paper with holes arranged so that machines can read it and set type from its instructions

______l. A magnetic memory storage for typesetting computers, used in same way as magnetic tape or perforated tape

______m. A keyboard machine that punches or perforates tape to be used for typesetting

______n. A system for the production of typewritten documents with automated typing and text-editing equipment

1. Phototext
2. Text type
3. Hyphenation
4. Justify
5. Perforated tape
6. Laser
7. Display type
8. Scrolling
9. OCR
10. Format
11. Floppy disc
12. Cathode-ray tube
13. Word processing
14. Perforator

2. Match the kinds of type on the right with the correct descriptions.

(NOTE: Answers may be used more than once.)

_____a. Clip art

_____b. Set by hand, and used in the same manner as foundry type, generally 72 points or larger

_____c. Type is cast, or produced, by a type foundry in individual oblong units, and sold in fonts

_____d. Impact composition such as typewriters

_____e. Type images exposed on photographic paper

_____f. Casts solid pieces of metal called slugs

1. Hot type
2. Cold type

3. Distinguish between characteristics of strike-on and phototypesetting machines in the statements below by placing an "S" for those pertaining to strike-on and a "P" for those pertaining to phototype.

_____a. Electric, with one-time plastic or carbon ribbons

_____b. Some utilize contact printing principles, and make only one size letter

_____c. Typewriters

_____d. Photoprint produced

4. Select true statements concerning first generation phototypesetters by placing an "X" in the appropriate blanks.

_____a. The hot-type casting machines were converted to set type on film or on phototype paper

_____b. The tape-operated typesetter utilized a revolving disc as an image carrier.

_____c. The first generation machines were electronic in operation

_____d. The monophoto typesetter was developed to set type photographically

5. Select true statements concerning second generation phototext typesetters by placing an "X" in the appropriate blanks.

_____a. Direct entry typesetters are operated from self-contained keyboards

_____b. Direct entry typesetters accept output from several keyboards _____c. A separate entry typesetter can accept output from several keyboard units

_____d. A direct entry typesetter has visual character display

_____e. All direct and separate entry machines have a built-in keyboard

6. Match third and fourth generation phototext typesetters with the correct descriptions.

(NOTE: Answers may be used more than once.)

_____a. Cathode-ray tube	1. Third generation
_____b. Input is from paper, magnetic tape, or electronic signal	2. Fourth generation
_____c. Laser phototypesetters	
_____d. 4000 or more type characters per second	

7. Identify the formats of the type compositions below.

Copy must occasionally be arranged
to fit around a
photograph or
illustration. This
format has a
name. It is very
effective when
used properly, but should not be over-
used, or it will lose its appeal and value.

a. ____________________________

Sometimes it is necessary to type
copy in different arrangements
to fit the page or space available.
These different arrangements are
called formats.

b. ____________________________

THIS IS A SAMPLE
OF TYPE
SET ON THE IBM
COMPOSER
Univers Type · 11 pt. Medium

Now is the time for all good men to
come to the aid of their country. Now
Now is the time for all good men to co
Now is the time for all good men t

c. ______________________________ d. ______________________________

Many type styles are available for use on the IBM Composer. Sizes may range in points from 6 to 12. The shift should never be in the locked position when changing elements. Otherwise the element may be damaged.

e. ______________________________

COMPOSITION-OVERVIEW AND FORMAT
UNIT I

ANSWERS TO TEST

1. a. 8
   b. 4
   c. 7
   d. 2
   e. 10
   f. 3
   g. 6
   h. 1
   i. 12
   j. 9
   k. 5
   l. 11
   m. 14
   n. 13

2. a. 2
   b. 1
   c. 1
   d. 2
   e. 2
   f. 1

3. a. S
   b. P
   c. S
   d. P

4. a, b, d

5. a, c, d

6. a. 1
   b. 2
   c. 2
   d. 1

7. a. Run-around
   b. Flush right
   c. Centered
   d. Justified
   e. Flush left

TYPESETTING PROCEDURES
UNIT II

UNIT OBJECTIVE

After completion of this unit, the student should be able to match terms related to typesetting procedures with the correct definitions and identify type image carriers. The student should also be able to set text type using a strike-on machine and a phototypesetting machine, and set display type using a photolettering/phototypesetting machine. This knowledge will be evidenced by correctly performing the procedures outlined in the job sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms related to typesetting procedures with the correct definitions.
2. Match types of strike-on typesetting equipment with the correct characteristics.
3. Select true statements concerning the characteristics of photolettering/phototypesetting machines.
4. Identify type image carriers.
5. Demonstrate the ability to:
    a. Set text type using a strike-on machine.
    b. Set text type using a phototypesetting machine.
    c. Set display type using a photolettering/phototypesetting machine.

TYPESETTING PROCEDURES
UNIT II

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information and job sheets.

III. Discuss unit and specific objectives.

IV. Discuss information sheet.

V. Demonstrate and discuss the procedures outlined in the job sheets.

VI. Trade literature on typesetting equipment, as well as type catalogs, makes good handout material at this time.

VII. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

  A. Objective sheet

  B. Information sheet

  C. Job sheets

    1. Job Sheet #1–Set Text Type Using a Strike-On Machine

    2. Job Sheet #2--Set Text Type Using a Phototypesetting Machine

    3. Job Sheet #3--Set Display Type Using a Photolettering/Phototypesetting Machine

  D. Test

  E. Answers to test

II. References:

  A. Cogoli, John E. *Photo-Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Co., 1980.

  B. Hawkinson, Bruce. *Graphic Arts-A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech Division of New Mexico State Department of Education, 1975.

TYPESETTING PROCEDURES
UNIT II

INFORMATION SHEET

I. Terms and definitions

   A. Font--Type image carrier made of film or metal

   B. Type element--Type image carrier for various strike-on equipment

   C. Display type--Type 14 points or larger in size

   D. Text type--Type 12 points or smaller in size

   E. Format--The style in which copy is typeset, such as justified, centered, or flush right

   F. Processor--Machine containing special chemicals used to develop phototypesetting paper

   G. Activator--A special developer used in processors to develop phototypesetting paper

   H. Stabilizer--A special firing chemical used in processors to stop development of phototypesetting paper

   I. Leading--The space between lines of type

II. Types and characteristics of strike-on (impact) typesetting equipment

   (NOTE: The following illustrations are examples of equipment used in typesetting: their use is not intended as an endorsement of any product.)

   A. Typewriters (Figure 1)

      1. Standard or electric

      2. Some models have proportional spacing

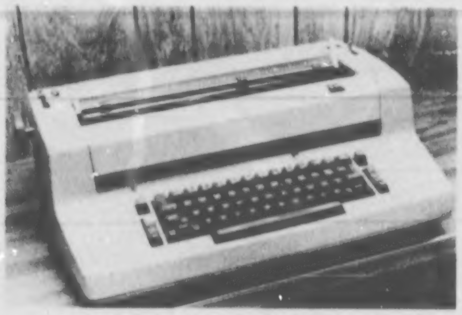


FIGURE 1 Electric Typewriter

Courtesy of IBM Corporation

INFORMATION SHEET

B. VariTyper strike-on typesetting machine (Figure 2)

1. Changeable type styles
2. Six to twelve point type size range
3. Proportional spacing
4. Justification possible with repeat typing
5. Ruling capabilities

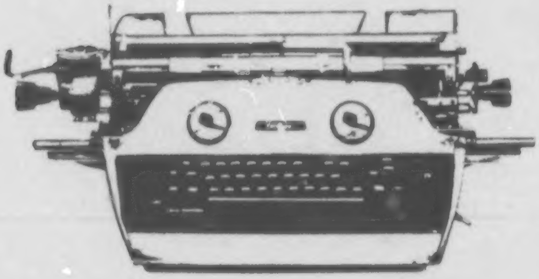


FIGURE 2 VariTyper Strike-On Typesetting Machine

Courtesy of AM Varityper

C. IBM Composer (Figure 3)

1. Changeable type elements
2. Six to twelve point type range
3. Semi-automatic justification
4. Ruling segment available
5. Magnetic tape capabilities

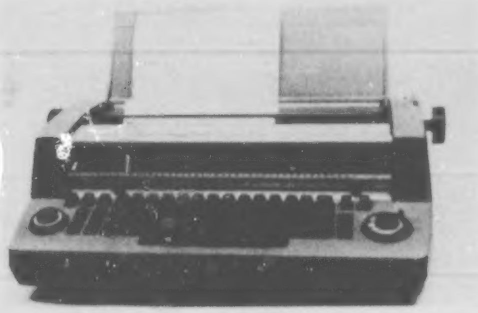


FIGURE 3 IBM Composer Courtesy of IBM Corporation

INFORMATION SHEET

III. Characteristics of photolettering/phototypesetting machines

   A. Photolettering display

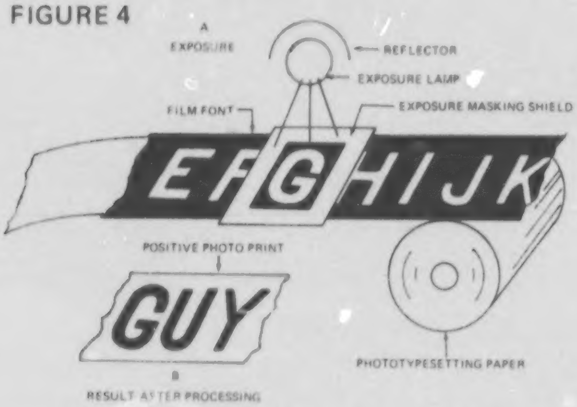
      1. Contact principle (Figure 4)

         a. Manual spacing and development

         b. Automatic spacing and development (Figures 5 and 6)

         c. Change type image carrier for different type sizes and styles

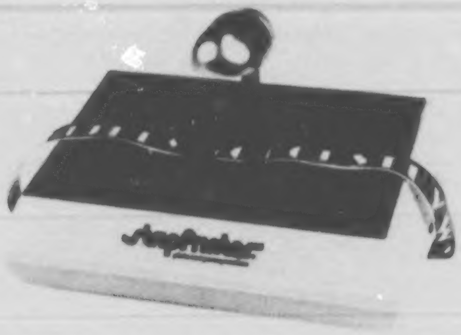
FIGURE 4


A
EXPOSURE
REFLECTOR
EXPOSURE LAMP
FILM FONT
EXPOSURE MASKING SHIELD
EFGHIJK
POSITIVE PHOTO PRINT
GUY
PHOTOTYPESETTING PAPER
B
RESULT AFTER PROCESSING

How Photographic Display Composition is Manually Composed
by Projection Printing Method

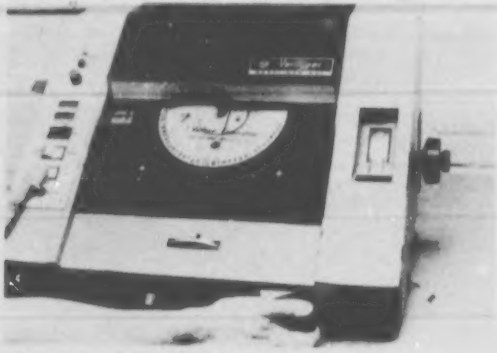
Contact Photolettering Machines

FIGURE 5 StripPrinter


StripPrinter

Courtesy of StripPrinter, Inc.

FIGURE 6 VariTyper Headliner



Courtesy of AM Varityper

INFORMATION SHEET

2. Projection principle (Figure 7)
   - a. Manual spacing and development
   - b. Different type sizes with one font or image carrier

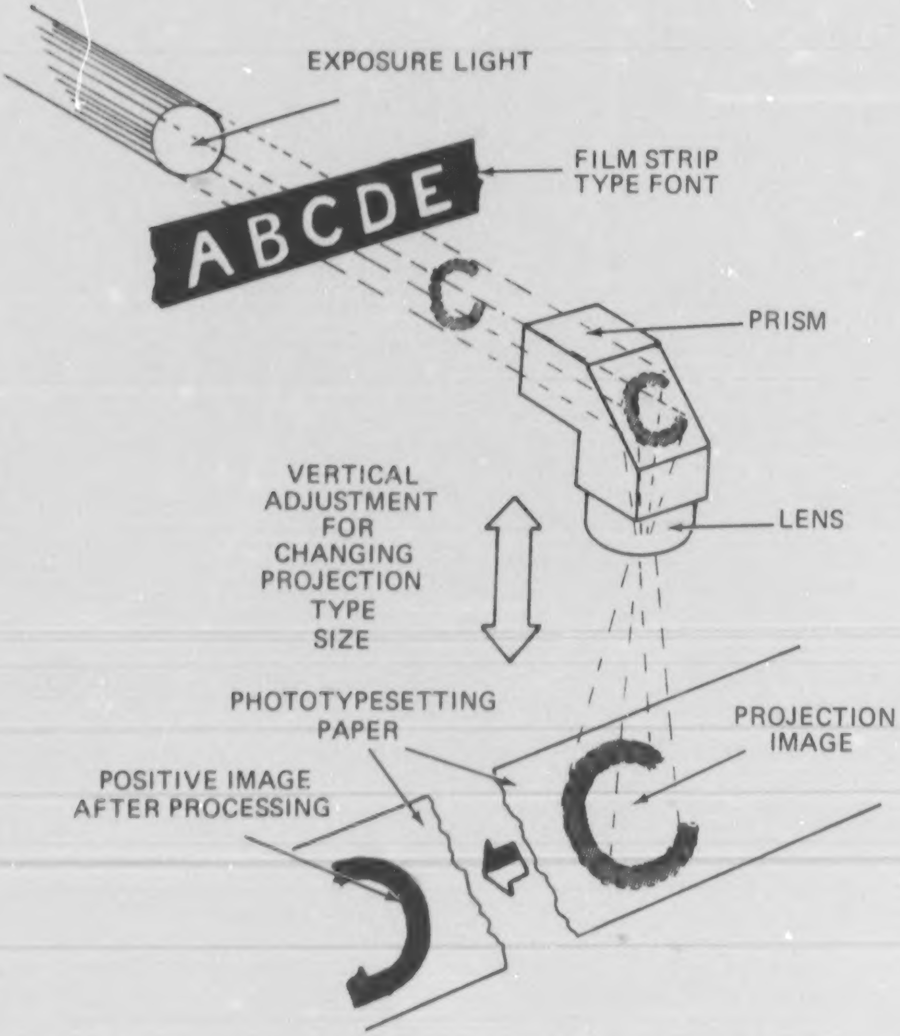

EXPOSURE LIGHT
FILM STRIP TYPE FONT
ABCDE
C
PRISM
C
LENS
VERTICAL ADJUSTMENT FOR CHANGING PROJECTION TYPE SIZE
PHOTOTYPESETTING PAPER
PROJECTION IMAGE
POSITIVE IMAGE AFTER PROCESSING

FIGURE 7 How Photographic Display Composition is Manually Composed by Projection Printing Method

INFORMATION SHEET

B. Phototypesetting display

   1. Projection principle

      a. Automatic spacing

      b. Wide range of type sizes

      c. Keyboard operated (Figure 8)

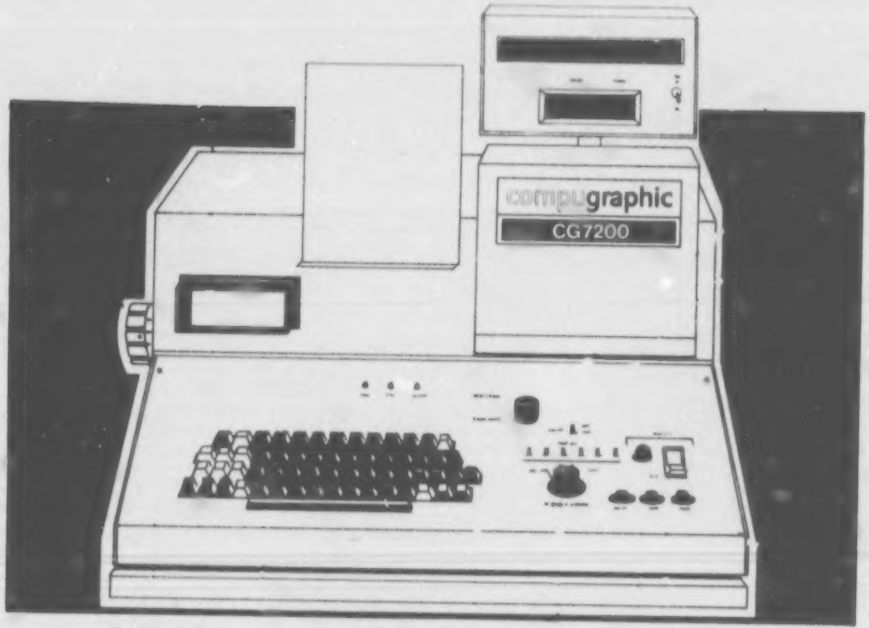


FIGURE 8 Compugraphic "7200"

Courtesy of Compugraphic Corp.

   2. Projection variations

      a. Some machines extend, condense, or italicize letters (Figure 9)

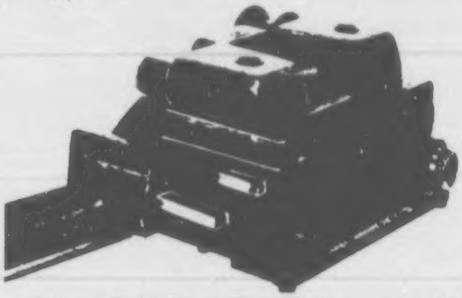


FIGURE 9 Typro Cold Type Photo-Composing Machine

INFORMATION SHEET

b. Screened or bounce letters possible

c. Other variations possible (Figure 10)

1
A Positive Type
Can Be Made
Directly In Film

2
More Than One Line
Of Copy May Be
Composed On
One Strip

3
Typesetting May Be
Composed On Paper
Or Film

4
Letters Can Be
Condensed Or
Extended

Letters May Be
Screened
Or
Patterned

FIGURE 10 A Few of Many Variations of Composing Possible on Typro

C. Text and text/display

1. Direct entry keyboard, wide range of point sizes, automatic justification, mixed styles and sizes on one line (Figure 11)

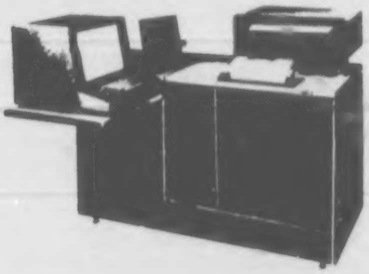
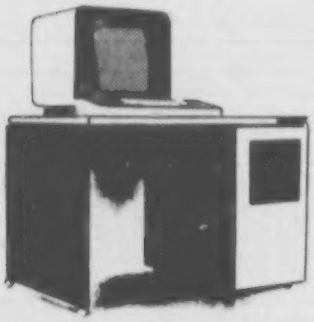


FIGURE 11 Comp/Set II Direct-Entry Phototypesetter

Courtesy of AM Varityper

INFORMATION SHEET

2. Separate entry, tape/disk driven, text and display, accepts input from several keyboard operators (Figures 12 and 13)



Courtesy of AM Varityper

FIGURE 12 The input/editing video terminal provides for input, handling of copy, and output to the photoypesetting system.

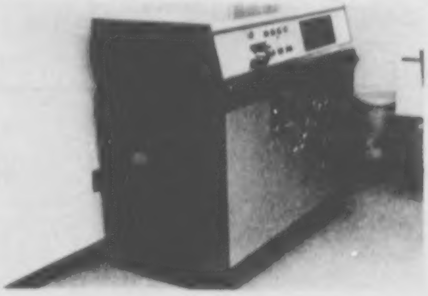


FIGURE 13

Separate entry, tape -operated, second generation text photoypesetter.

Courtesy of Mergenthaler Linotype Company

IV. Type image carriers

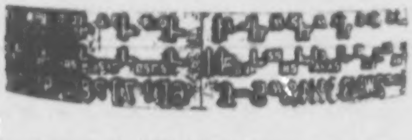
(NOTE: Different manufacturers have their own terms for type image carriers, e.g., fonts, film strip fonts, matrixes, discs, masters, cassettes, grids.)

A. Strike-on (Figures 14 and 15)

1. Font or element contains all characters of one size and style of type

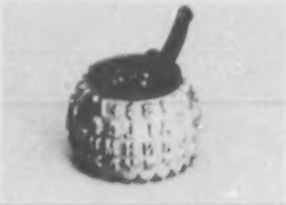
2. Made of lightweight cast metal

FIGURE 14 VariTyper Type "Font"



Courtesy of AM Varityper

FIGURE 15 IBM Composer Type "element"



Courtesy of IBM Corporation

INFORMATION SHEET

B. Phototype (Figures 16 and 17)

1. Typemasters usually contain all characters of one size and style of type, though some styles contain only upper case or lower case characters
2. Film strip fonts often contain two or more styles or faces, such as italic, bold, or gothic

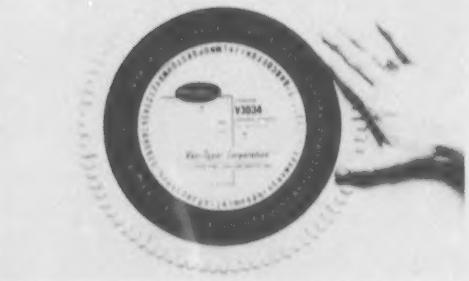


FIGURE 16 Varityper Headliner "Typemaster"

Courtesy of AM Varityper

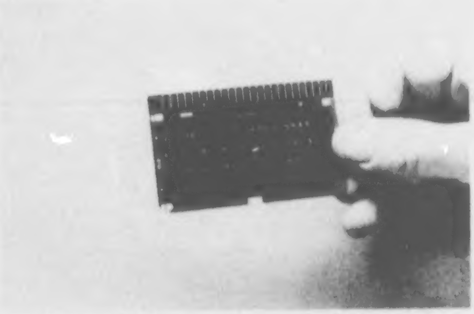


FIGURE 17 Film Strip "Font"

(CAUTION: All type elements, fonts, etc., should be handled very carefully, as they are very fragile.)

TYPESETTING PROCEDURES
UNIT II

JOB SHEET #1--SET TEXT TYPE USING A STRIKE-ON MACHINE

(NOTE: The application of this job sheet may be made to include the following variations to afford student experience with: 1. Different brands of strike-on composition equipment including typewriters; 2. Different formats to be set, such as justified, ragged, run-arounds; 3. Type selection for different kinds of jobs; 4. Copyfitting. Manufacturer's instruction manuals should be referred to for different machines.)

I. Tools and materials

  A. Strike-on typesetting machine

  B. Type image carrier

  C. Smooth white paper

  D. Line gauge

  E. Copy furnished by instructor

II. Procedure

  A. Consult instruction manual for typesetting machine to be used

  B. Mark-up copy from information given by instructor

  C. Determine format of copy

  D. Select type style and place font, element, or film strip on machine

  (NOTE: Instructor will demonstrate or aid you in this step.)

  E. Set machine for type size if necessary

  F. Set machine for leading

  G. Determine line length for copy to be set

  H. Change machine line length to appropriate position

  I. Ask instructor for check on settings

  J. Typeset copy, following directions as marked

  K. Proofread copy

  L. Make corrections

  M. Turn in for evaluation

  N. Clean up all materials from areas used

TYPESETTING PROCEDURES
UNIT II

JOB SHEET #2–SET TEXT TYPE USING A PHOTOTYPESETTING MACHINE

(NOTE: The application of this job sheet may be made to include the following variations to afford student experience with: 1. Different brands of photo-composition equipment and processors; 2. Different formats to be set, such as justified, ragged, run-arounds; 3. Type selection for different kinds of jobs; 4. Copyfitting. Manufacturer's instruction manuals should be referred to for different machines.)

I. Tools and materials:

   A. Phototypesetting machine

   B. Type image carrier

   C. Line gauge

   D. Copy furnished by instructor

   E. Processor and chemicals

II. Procedure

   A. Consult instruction manual for machine to be used

   B. Mark-up copy from information given by instructor

   C. Determine format of copy

   D. Select type style and place font or film strip on machine

   (NOTE: Instructor will demonstrate or aid you in this step.)

   E. Set machine for type size if necessary

   F. Set machine for leading

   G. Determine line length for copy to be set

   H. Change machine line length to appropriate position

   I. Ask instructor to check all settings

   J. Typeset copy, following directions as marked

   K. Prepare chemicals for processor, if necessary

   L. Run out necessary leader, and remove photo paper from typesetting machine

   M. Develop paper in processor

JOB SHEET #2

N. Proofread copy

O. Make corrections

P. Turn in for evaluation

Q. Clean up all materials from areas used

TYPESETTING PROCEDURES
UNIT II

JOB SHEET #3--SET DISPLAY TYPE USING A PHOTOLETTERING/PHOTOTYESETTING MACHINE

(NOTE: The application of this job sheet may be made to include the following variations to afford student experience with: 1. Different brands of photo-composition equipment and processors; 2. Type selection for different kinds of jobs; 3. Copyfitting. Manufacturer's instruction manuals should be referred to for different machines.)

I. Tools and materials:

   A. Photolettering/phototypesetting machine

   B. Type image carrier

   C. Line gauge

   D. Copy furnished by instructor

   E. Processor and chemicals

II. Procedure

   A. Consult instruction manual for machine to be used

   B. Copy-fit and mark-up copy from information given by instructor

   C. Select type style and place font or film strip on machine

   (NOTE: Instructor will demonstrate or aid you in this step.)

   D. Set machine for type size if necessary

   E. Determine line length for copy to be set

   F. Change machine line length to appropriate position

   G. Ask instructor to check all settings

   H. Typeset copy, following directions as marked

   I. Prepare chemicals for processor, if necessary

   J. Run out necessary leader, and remove photo paper from typesetting machine

   K. Develop paper in processor

   L. Proofread copy

   M. Make corrections

JOB SHEET #3

N. Turn in for evaluation

O. Clean up all materials from areas used

TYPESETTING PROCEDURES
UNIT II

NAME______________________________

TEST

1. Match the terms related to typesetting procedures on the right with the correct definitions.

_____a. Type image carrier made of film or metal

_____b. Type image carrier for various strike-on equipment

_____c. Type 14 points or larger in size

_____d. Type 12 points or smaller in size

_____e. The style in which copy is typeset, such as justified, centered, or flush right

_____f. Machine containing special chemicals used to develop phototypesetting paper

_____g. The space between lines of type

_____h. A special developer used in processors to develop phototypesetting paper

_____i. A special fixing chemical used in processors to stop development of phototypesetting paper

1. Format
2. Leading
3. Processor
4. Type element
5. Text type
6. Font
7. Display type
8. Stabilizer
9. Activator

2. Match the types of strike-on typesetting equipment on the right with the correct characteristics.

(NOTE: Answers may be used more than once and two terms may apply to one description.)

_____a. Semi-automatic justification

_____b. Standard or electric

_____c. Magnetic tape capabilities

_____d. Six to twelve point type size range

1. Typewriters
2. VariTyper strike-on
3. IBM Composer

3. Select true statements concerning the characteristics of photolettering/phototypesetting machines by placing an "X" in the appropriate blanks.

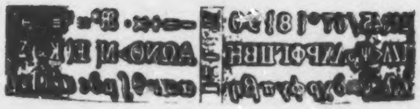
_____a. Some photolettering display machines require manual spacing and development

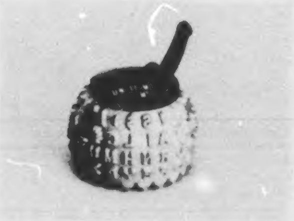
_____b. Separate entry machines can accept input from several keyboard operators _____c. There is a wide range of type sizes on phototypesetting display machines

_____d. The text and text/display machine can provide automatic justification and mixed styles and sizes on one line

4. Identify the type image carriers shown below by placing the appropriate number in the appropriate blanks.

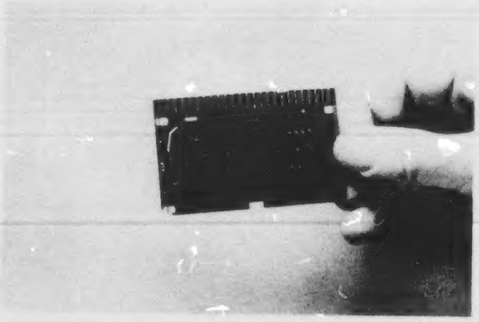
1. VariTyper Headliner "Typemaster"
2. VariTyper Type "Font"
3. Film Strip "Font"
4. IBM Composer Type "Element"

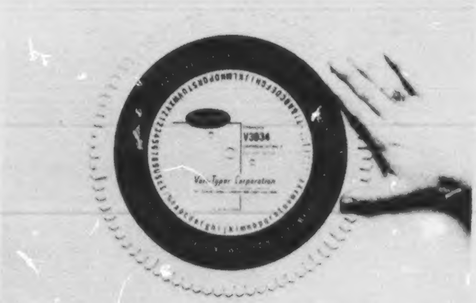




a. ______________________

b. ______________________





c. ______________________

d. ______________________

5. Demonstrate the ability to:

   a. Set text type using a strike-on machine.

   b. Set text type using a phototypesetting machine.

   c. Set display type using a photolettering/phototypesetting machine.

   (NOTE: If these activities have not been completed prior to the test, ask your instructor when they should be completed.)

TYPESETTING PROCEDURES
UNIT II

ANSWERS TO TEST

1. a. 6
   b. 4
   c. 7
   d. 5
   e. 1
   f. 3
   g. 2
   h. 9
   i. 8

2. a. 3
   b. 1
   c. 3
   d. 2 or 3

3. a, b, c, d

4. a. 2
   b. 4
   c. 1
   d. 3

5. Performance skills evaluated to the satisfaction of the instructor

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

UNIT OBJECTIVE

After completion of this unit, the student should be able to match proofreaders' marks with the correct meanings, read and mark proof copy, and read and mark newspaper copy. The student should also be able to make corrections in proof copy. This knowledge will be evidenced by correctly performing the procedures outlined in the assignment and job sheets and by scoring 85 percent on the unit test.

SPECIFIC OBJECTIVES

After completion of this unit, the student should be able to:

1. Match terms related to proofs, proofreading, and corrections with the correct definitions.
2. Select true statements concerning kinds of type proofs.
3. Match proofreaders' marks with the correct meanings.
4. Select true statements concerning reading and marking proof copy.
5. Match types of corrections with their correct methods.
6. Read and mark proof copy.
7. Read and mark newspaper copy.
8. Demonstrate the ability to make corrections in proof copy.

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

SUGGESTED ACTIVITIES

I. Provide student with objective sheet.

II. Provide student with information, assignment, and job sheets.

III. Make transparency.

IV. Discuss unit and specific objectives.

V. Discuss information and assignment sheets.

VI. Demonstrate and discuss the procedures outlined in the job sheet.

VII. Samples of hand-set or line-casting machine type as well as phototype and strike-on composition is well received now.

VIII. A bulletin board display showing typographical errors is suggested.

IX. The *Harbrace College Handbook* provides excellent material on spelling and punctuation.

X. A discussion on hyphenation would be helpful at this time. The book *Webster's Instant Word Guide* would be very useful.

XI. Give test.

INSTRUCTIONAL MATERIALS

I. Included in this unit:

- A. Objective sheet
- B. Information sheet
- C. Transparency Master 1--Proofreaders' Marks
- D. Assignment sheets
    1. Assignment Sheet #1--Match Proofreaders' Marks
    2. Assignment Sheet #2--Read and Mark Proof Copy
    3. Assignment Sheet #3--Read and Mark Newspaper Copy

E. Answers to assignment sheets

F. Job Sheet #1--Make Corrections in Proof Copy

G. Test

H. Answers to test

II. References:

A. Hawkinson, Bruce. *Graphic Arts - A Curriculum Manual.* Santa Fe, NM 87503: Vo-Tech Division of NM State Department of Education, 1975.

B. Spence, William, and Vequist, David. *Graphic Reproduction.* Peoria, IL 61615: Chas. A Bennett, Inc., 1980.

C. Cogoli, John. *Photo Offset Fundamentals.* Bloomington, IL 61701: McKnight Publishing Company, 1980.

III. Additional references:

A. Hodges, John C., and Whitten, Mary E. *Harbrace College Handbook.* 7th Ed. New York: Harcourt Brace Jovanovich, Inc., 1972.

B. *Webster's Instant Word Guide.* Springfield, MA: G. & C. Merriam Company, 1972.

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

INFORMATION SHEET

I. Terms and definitions

A. Proof press--A mechanical device, either hand or power operated, used to make a proof from hot type

B. Reading proof--A copy of printed material which a proofreader reads and marks to indicate any errors

C. Reproduction proof--A high-quality proof used as the original in making multiple copies by photo reproduction

D. Proofreading--Reading words on a proof and marking any errors for correction

E. Copy holder--One who reads from original copy to proofreader

F. Proofreaders' marks--Symbols used by proofreaders to indicate corrections necessary in the proof

G. Path line--A line drawn from error in proof to symbol for error in nearest margin

H. Cursor--A rectangle of light or an underline dash which appears on the screen of a video-display typeset or editing unit which points out the location of the character as the typesetting progresses, and is used to locate and correct errors

I. Paper or magnetic tape/disk--Type composition prepared on a separate keyboard machine and stored on paper or magnetic tape to be played back on a phototypesetter

II. Kinds of type proofs

A. Proofs of metal and wood type composition

1. Forms are inked and proof is pulled on proof press

2. Proof is pulled on paper larger than type to leave room for marking corrections

B. Proofs of phototype composition

1. Proofs of film positives and negatives are submitted to proofroom as paper positives

2. Corrections marked on these paper positives

INFORMATION SHEET

C. Visual-editing and proofing terminal

1. Used to make corrections on composition in paper tape, magnetic tape, computer storage, or that being fed in from a separate unit
2. Operator reads this copy on screen, checking for errors, changes, or omissions, and by use of a cursor, locates and corrects the copy

D. Typewritten, hand-lettered, or pasted-up copy

1. This copy will be used as final camera copy and should not be used for proofreading and marking
2. Duplicate copies should be made and used for proofreading and marking

III. Proofreaders' marks (Transparency 1)

(NOTE: Proofreaders' marks are often called a printer's shorthand.)

A. ₰ --Delete

B. ₰̑ --Delete and close up

C. ૭ --Turn inverted letter

D. ⁀‿ --Close up

E. # --Insert space

F. ✓✓✓ --Equalize spacing

G. less # --Reduce spacing

H. ¶ --Paragraph

I. □ --Indent one em

J. [--Move to left

K.] --Move to right

L. ⊔ --Lower

M. ⊓ --Elevate

N. ∧ --Insert marginal addition

O. X --Broken letter

P. ⊥ --Push down space

INFORMATION SHEET

Q.	═	--Straighten
R.	‖	--Align type
S.	$\overset{,}{\wedge}$	--Insert comma
T.	$\overset{'}{\vee}$	--Insert apostrophe
U.	$\overset{''}{\vee}$	--Insert quotes
V.	(/)	--Insert parentheses
W.	[/]	--Insert brackets
X.	$\underset{3}{\wedge}$	--Insert inferior figure
Y.	$\overset{1}{\vee}$	--Insert superior figure
Z.	=/	--Hyphen
AA.	|em|	--Em dash
BB.	|en|	--En dash
CC.	;/	--Insert semicolon
DD.	:/	--Insert colon
EE.	⊙	--Insert period
FF.	?/	--Insert question mark
GG.	(?)	--Query to author
HH.	⌢	--Use ligature
II.	(SP)	--Spell out
JJ.	tr	--Transpose
KK.	set 1, 2, 3	--In this order
LL.	wf	--Wrong font
MM.	bf	--Set in bold face type
NN.	rom	--Set in roman type
OO.	ital	--Set in italic type

INFORMATION SHEET

PP. Caps --Set in capitals

QQ. sc --Set in small capitals

RR. lc --Set in lower case

SS. ~~B~~ --Lowercase letter

TT. stet --Let it stand

UU. no ¶ --Run in same paragraph

VV. ld> --Insert lead between lines

WW. hr# --Hair space between letters

XX. out sc --Out-see copy

YY. # --End of copy

IV. Reading and marking proof copy

A. Reading

1. Correcting proofs usually involves two people, one reading, and one marking, though one person may perform both functions

2. Reader reads copy aloud, calling out instructions:

   a. Mark up instructions

   b. Spells difficult words

   c. Tells which letters are capitalized

   d. Indicates whether dates and amounts are figures or words

   e. Mentions each item of punctuation

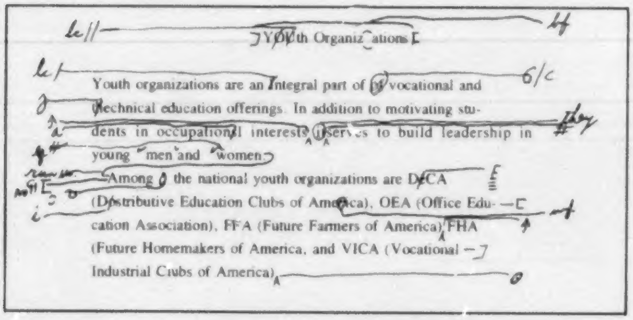
   f. Mentions indentions and paragraphs

B. Marking

1. Detects and marks each error on proof

INFORMATION SHEET

2. Can use path line method of marking (Figure 1)



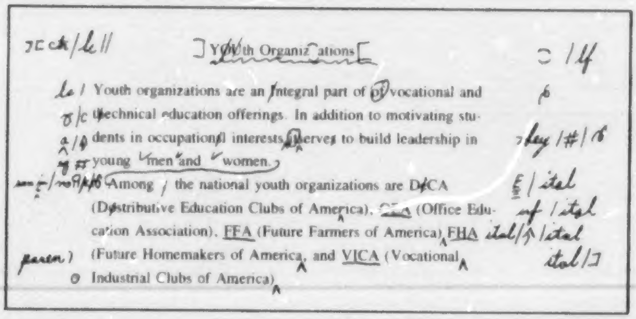
Youth Organizations

Youth organizations are an Integral part of of vocational and technical education offerings. In addition to motivating students in occupationl interests it serves to build leadership in young men and women

Among the national youth organizations are DECA (Distributive Education Clubs of America), OEA (Office Education Association), FFA (Future Farmers of America) FHA (Future Homemakers of America, and VICA (Vocational Industrial Clubs of America)

FIGURE 1

3. Can use margin marks corresponding to the marks in the line in another method (Figure 2)



Youth Organizations

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FIGURE 2

V. Types of corrections and their methods

A. Foundry corrections

1. One letter corrections are made by substituting right letter for wrong letter

2. If error involves letters of unlike width or several letters, return line to composing stick and reset

B. Hot type from line-casting machine

1. Must reset complete line

2. Exchange corrected lines for lines with errors

INFORMATION SHEET

C. Cold type composition

1. Correct a whole word, or line, not just a character
2. Typeset correction using correct type
3. Using light table or layout table, paste correction over error

   (Note: If layout table is used, use T-square to check correction for straightness.)

Proofreaders' Marks

₰	Delete
⁀₰‿	Delete and close up
9	Turn inverted letter
⁀‿	Close up
#	Insert space
√√√	Equalize spacing
less #	Reduce spacing
¶	Paragraph
□	Indent one em
[	Move to left
]	Move to right
⊔	Lower
⊓	Elevate
∧	Insert marginal addition
X	Broken letter
⊥	Push down space
=	Straighten
‖	Align type
$\overset{,}{\wedge}$	Insert comma
$\overset{'}{\vee}$	Insert apostrophe
$\overset{''}{\vee}$	Insert quotes
(/)	Insert parentheses
[/]	Insert brackets
$\underset{3}{\wedge}$	Insert inferior figure
$\overset{3}{\vee}$	Insert superior figure
=/	Hyphen

|em|	Em dash
|en|	En dash
;/	Insert semicolon
:/	Insert colon
⊙	Insert period
?/	Insert question mark
(?)	Query to author
⌢	Use ligature
(sp)	Spell out
tr	Transpose
set 1, 2, 3	In this order
wf	Wrong font
bf	Set in bold face type
rom	Set in roman type
ital	Set in italic type
Caps	Set in capitals
sc	Set in small capitals
lc	Set in lower case
B̸	Lower-case letter
stet	Let it stand
no ¶	Run in same paragraph
ld>	Insert lead between lines
hr#	Hair space between letters
out sc	Out–see copy
#	End of copy

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

ASSIGNMENT SHEET #1- MATCH PROOFREADERS' MARKS

Directions: Match the proofreaders' marks on the right with the correct meaning.

____A. Close up

____B. Insert question mark

____C. Move to right

____D. Wrong font

____E. Query to author

____F. Paragraph

____G. Equalize spacing

____H. Set in lower case

____I. Insert apostrophe

____J. Set in capitals

____K. Move to left

____L. Insert marginal addition

____M. Insert period

____N. Set in roman type

____O. Turn inverted letter

____P. Indent one em

____Q. Reduce spacing

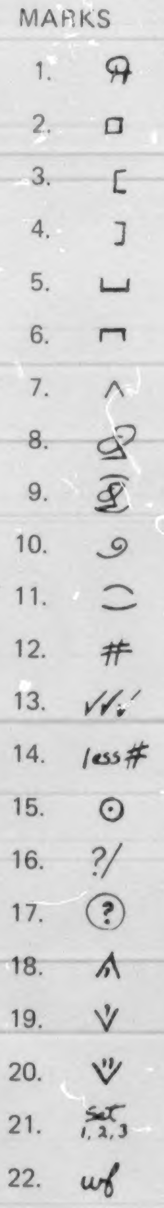
____R. Insert comma

____S. Lower

____T. In this order

____U. Let it stand

____V. Elevate


MARKS
1. ¶
2. □
3. [
4.]
5. ⊔
6. ⊓
7. ^
8.
9.
10.
11. ⁀
12. #
13. ✓✓✓
14. less#
15. ⊙
16. ?/
17. (?)
18.
19.
20.
21. set 1, 2, 3
22. wf

ASSIGNMENT SHEET #1

______W. Insert quotes

______X. Set in bold face type

______Y. Delete and close up

______Z. Insert space

____AA. Set in italic type

____BB. Delete

____CC. Set in small capitals

____DD. Lowercase letter

23. lf

24. rom

25. ital

26. Caps

27. sc

28. lc

29. B

30. stet

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

ASSIGNMENT SHEET #2--READ AND MARK PROOF COPY

Directions: Read and mark the copy below with appropriate proofreaders' marks, using either the path line or corresponding margin mark method.

Proofreading is the art of checking cop y fore errors and indicating the corrections to be made. Ideally, proofreading is done by two peoples. One is the *copy holder* who reads aloud fromthe original copy to the proof reader. The other, called the *proof reader*, follows the reading proof and marks any corrections necessary.

Sometimes, however, the proofreader werks alone, checking the original copy against the proof.

Proofreaders Marks (also *proof marks*) are the symbols used bythe proofreader to indicate the corrections necessary *in* the proof. Examples of the msot commonly used proof marks are shown on the following page

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

ASSIGNMENT SHEET #3--READ AND MARK NEWSPAPER COPY

Directions: Locate and paste-up newspaper clippings with errors, and read and mark copy for corrections.

(NOTE: Instructor may compose his own newspaper copy and provide for reading and marking.)

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

a.	11	k.	3	u.	30
b.	16	l.	7	v.	6
c.	4	m.	15	w.	20
d.	22	n.	24	x.	23
e.	17	o.	10	y.	9
f.	1	p.	2	z.	12
g.	13	q.	14	aa.	25
h.	28	r.	18	bb.	8
i.	19	s.	5	cc.	27
j.	26	t.	21	dd.	29

Assignment Sheet #2

⁀ *Proofreading* is the art of checking cop y fore errors and indicating the corrections ℯ
to be made. Ideally, proofreading is done by two peoples. One is the *copy holder* who ℯ
# reads aloud fromthe original copy to the proof reader. The other, called the *proof reader*,
follows the reading proof and marks any corrections necessary.
no ¶ Sometimes, however, the proofreader werks alone, checking the original copy against o
the proof.

Proofreaders Marks (also *proof marks*) are the symbols used bythe proofreader to #
wf indicate the corrections necessary *in* the proof. Examples of the msot commonly used tr
proof marks are shown on the following page ⊙

Assignment Sheet #3--Evaluated to the satisfaction of the instructor

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

JOB SHEET #1--MAKE CORRECTIONS IN PROOF COPY

I. Tools and materials

- A. Light table or layout table
- B. T-square
- C. Proof copy furnished by instructor
- D. Corrections furnished by instructor
- E. Scissors
- F. Stripping knife
- G. Rubber cement or adhesive wax
- H. Light blue pencil

II. Procedure

- A. Read proof copy carefully
- B. Mark copy with light blue pencil
- C. Select corrections from furnished copy
- D. Cut out corrections, being careful not to cut into copy
- E. Paste-up corrections following directions on information sheet
- F. Turn in for evaluation

(NOTE: Always check paste-up copy to be sure copy is clean and that the corrections do not cover any other element.)

PROOFS, PROOFREADING, AND CORRECTIONS
UNIT III

NAME ______________________________

TEST

1. Match the terms on the right with the correct definitions.

_____a. A mechanical device, either hand or power operated, used to make a proof from hot type

_____b. A copy of printed material which a proofreader reads and marks to indicate any errors

_____c. A high-quality proof used as the original in making multiple copies by photo reproduction

_____d. Reading words on a proof and marking any errors for correction

_____e. One who reads from original copy to proofreader

_____f. Symbols used by proofreaders to indicate corrections necessary in the proof

_____g. A line drawn from error in proof to symbol for error in nearest margin

_____h. A rectangle of light or an underline dash which appears on the screen of a video-display typeset or editing unit which points out the location of the character as the typesetting progresses, and is used to locate and correct errors

_____i. Type composition prepared on a separate keyboard machine and stored on paper or magnetic tape to be played back on a phototypesetter

1. Cursor
2. Copy holder
3. Reproduction proof
4. Path line
5. Proof press
6. Paper or magnetic tape/disk
7. Proofreaders' marks
8. Reading proof
9. Proofreading

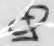
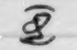
2. Select true statements concerning kinds of type proofs by placing an "X" in the appropriate blanks.

_____a. In a visual-editing and proofing terminal, a cursor is used to locate and correct copy

_____b. Proofs of phototype composition are submitted to proofroom as paper positives _____c. Typewritten, hand-lettered, or pasted-up copy should be used for final proofreading and marking

_____d. Proof forms of metal and wood are inked and proof is pulled on proof press

3. Match the proofreaders' marks on right with the correct meanings.

_____a. Wrong font	1.	⁐
_____b. Delete	2.	#
_____c. Set in roman type	3.	wf
_____d. Close up	4.	bf
_____e. Set in bold face type	5.	rom
_____f. Delete and close up	6.	ital
_____g. Insert space	7.	
_____h. Set in italic type	8.	
_____i. Run in same paragraph	9.	⁁
_____j. Lowercase letter	10.	$\cancel{B}$
_____k. Transpose	11.	⊔
_____l. Insert comma	12.	no ¶
_____m. Lower	13.	tr

4. Select true statements concerning reading and marking proof copy by placing an "X" in the appropriate blanks.

_____a. The proofreader, when reading to a marker, spells out difficult words

_____b. The two methods of marking copy are the path line and the corresponding margin marker

_____c. The marker, not the reader, reads copy out loud

_____d. One person may perform both tasks, reading and marking

5. Match the types of corrections on the right with their correct methods.

_____a. If error involves letters of unlike width or several letters, return line to composing stick and reset

_____b. Using light table or layout table, paste correction over error

_____c. Must reset complete line

1. Cold type composition corrections
2. Foundry corrections
3. Hot type from line-casting machine corrections

6. Read and mark proof copy.
7. Read and mark newspaper copy.
8. Demonstrate the ability to make corrections in proof copy.

(NOTE: If these activities have not been accomplished prior to the test, ask your instructor when they should be completed.)

PROOFS, PROOFREADING AND CORRECTIONS
UNIT III

ANSWERS TO TEST

1. a. 5
   b. 8
   c. 3
   d. 9
   e. 2
   f. 7
   g. 4
   h. 1
   i. 6

2. a, b, d

3. a. 3
   b. 7
   c. 5
   d. 1
   e. 4
   f. 8
   g. 2
   h. 6
   i. 12
   j. 10
   k. 13
   l. 9
   m. 11

4. a, b, d

5. a. 2
   b. 1
   c. 3

6. Evaluated to the satisfaction of the instructor

7. Evaluated to the satisfaction of the instructor

8. Performance skills evaluated to the satisfaction of the instructor